RaptorMed

User's Manual

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Introduction

RaptorMed is a patient management software package originally designed for the unique needs of birds of prey. It was created and developed by Dr. Dave Scott and the staff at the Carolina Raptor Center in Charlotte, NC in 2009. It has since been expanded to handle any type of wildlife patient.

It is very easy to use, requires very little in the way of computing resources and has a very long list of useful functions and features that are designed to improve staff efficiency and the quality of care. In addition, because there is powerful database running behind-the-scenes, the data that is collected in the system is now completely searchable. With **RaptorMed**, you can "go paperless" as there is no need for traditional paper records anymore.

Here is just a short sample of the many things that **RaptorMed** does:

- Track daily treatments and feedings
- Schedule medications and procedures
- Auto-calculate drug dosages
- Track the exact location of every bird
- Track each patient's problem list
- Track weight and growth curves
- Monitor physical therapy and feather check results
- Store all imagery files and lab results
- Generate all sorts of historical statistics
- Estimate the cost of care for a patient
- Produce all federal and state reports automatically
- Produce Bandit reports automatically

Chapter 1

[The main screen]
[Adding a new patient]
[Viewing a patient's chart]
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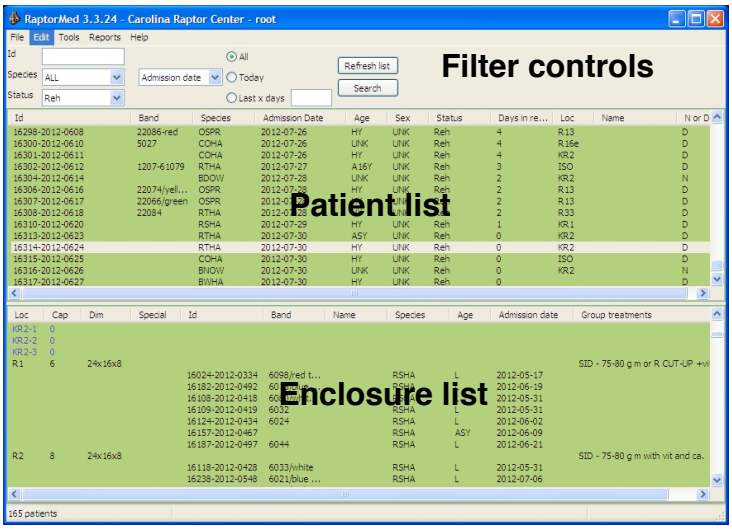
The main screen

Besides the main menu, the main screen is divided into three areas:

- The filter controls that determine which patients are displayed in the patient list
- The patient list
- The enclosure/location list



Displaying certain patients with the filter controls

The filter bar allows the patient list to be filtered by various attributes including:

- **Patient id** - If this is entered, all other attributes are ignored and only the specified patient will be listed.
- **Species group** (if enabled) - Species groups are user-defined and can be, for example, avian, avian:raptor, avian:songbird, mammal, mammal:rodent, etc.
- **Species**
- **Status/Disposition**
- **Admission date** or **Final date** - You can select **All**, **Today**, or specify the number of days in the past.
- **Location** - You can choose to view animals in only one specific location all all location.
- **Active patient status** - You can choose to view only active and/or inactive patients. An active patient is defined as one that has the Active patient checkbox checked and is typically used to flag patients that are acutely injured and still in need of more hands-on attention.

The patient status codes are:
DOA - dead on arrival
EOA - euthanized on arrival
D24 - died in the first 24 hours
E24 - euthanized in the first 24 hours
D - died after 24 hours
E - euthanized after 24 hours
Reh - currently in rehab
R - released
PR - permanent resident
T - transferred
ESC - escaped

Once the desired attributes are entered, press the **Search** button and the patient list will be filled appropriately.

For day-to-day use, it is usually best to display patients of all species and status equal to **Reh or PR**. This will display all active patients.

The **Refresh** button is used to refresh the patient list from the database. This should be used if certain changes are made at another computer. For instance, if a new patient is added or moved to a new location on another computer, the data needs to be refreshed from the database before it will display properly.

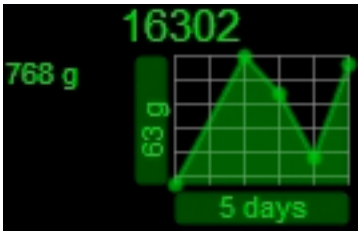
The filter control area also has a **Goto** field that can be used to Scroll the Enclosure list directly to a specific location. This is helpful in instances where you have many enclosure are enclosures when many animals.

The patient list

The patient list displays all patients that match the currently applied filter parameters described above. The list is sortable by clicking on each column. The patient id, species, location and various other important data fields are displayed for each patient. In addition, the **Special** column displays abbreviations for some of the more important check box attributes that can be selected for each patient. Specifically,

- **RWF** - Release where found
- **NOT RWF** - NOT release where found
- **FS** - Feed separately
- **NR** - Non-releasable
- **LPT** - Live prey test required
- **SWF** - Staff will feed

Click **here** for more information on the check box attributes.



*Shift-right click on a patient on the main screen to get a quick "Snapshot" that displays the weight profile as well as the last weight and date and any of the **Special** attributes listed to the left.*

To access a patient record, simply double-click on it.

The following commands are available from by right-clicking on an entry in this list:

- Edit treatments
- Add new record entry
- Show reminders - All upcoming reminders will be displayed in a popup window.
- Paperwork - **RaptorMed** can do all sorts of paperwork for you automatically. This includes sending various notifications species to your US FWS agent or creating a non-releasability letter.

- Delete this patient - Although this should not need to be done often, this command allows you to remove a patient from the system. This is typically only needed if a patient was added accidentally.
- Assign to team (if **Teams** are enabled on your system)
- Show species info page - An informational page on the web will be displayed for this patient's species. Note that these information pages need to be configured for each species. See Species for more information.
- Goto location - this will automatically scroll the Enclosure list the location that currently contains this animal.

The enclosure/location list

The cage\location list displays each enclosure or location. Each patient is displayed below the appropriate location. Empty locations are highlighted in **blue** and cages under construction in **red**. To access a patient record, simply double-click on it.

The following commands are available from by right-clicking on an entry in this list:

- Record group treatment
- Delete last group entry - This command will delete the last entry made for each patient in the specified enclosure. This can be used in case a group entry was made incorrectly or accidentally.
- Edit group treatment
- Show weight trends
- Add reminder
- Cleaning and watering - This command allows you to record various cleaning/maintenance actions for location/enclosure. This data is displayed on the Enclosure cleaning and maintenance report.
- Edit cage/location properties
- Cage summary - This report concisely summarizes all patients in the specified enclosure. It includes the patient's id, band information, species, age, days in rehab, and whether the patient is marked as **Release Where Found**. It also includes a list of the problems. This report can be printed and is handy when going to a specific enclosure to evaluate animals for release.
- Group operations
- Assign to team (if **Teams** are enabled on your system)

General Workflow

1. Add a patient
2. Setup treatment plan
3. Print treatments sheets
4. Do your treatments
5. Record your treatments
6. And start all over again

Adding a new patient

To add a new patient, select **Edit ▶ Add new patient** from the main menu.

Note that it is important that two patients are not entered at the same time as they will end up with the same id number.

The **New patient** form appears. Note that the next patient **Id** is automatically selected. You should almost never have a need to change this id.

The **Admission date** and **Species** are mandatory. The species can be chosen from the abbreviation list or you can press **Lookup** link to choose the species by their common names.

All other fields are optional but it is important to enter as much information as is available as some of it is required on various state and federal reports. There are fields to enter information about where and when the patient was found. In addition, you can enter information (the **Presented by** fields) about where this patient may have been transferred from (another rehab organization, for example). Information for either address (where found and presented by) can be retrieved from the **Address Book** by pressing this button.

Click here to pull the lat/lon from the **RaptorMed** Google Map

Click here for more information on the **Address Book**. You can copy the contact information from the **Where found** fields to/from the **Presented by** fields by pressing the **left** and **right arrow** buttons.

You can specify the exact location for where the patient was found by manually entering the coordinates in the **Lat/Lon** fields. You can also pull the exact coordinates from the **RaptorMed Google Map**. To do this, load the Google Map into your browser. Find the location on the map and left-click on the location. Now, back in **RaptorMed**, press the **Google Map** button and the coordinate fields will be filled in automatically for you. Click here for more information on the **RaptorMed Google Map**.

If configured properly, the system will automatically fill in the county and zip code when you choose a city from the pre-filled list or when you manually type in a value. This applies to all forms that allow you to enter city as part of an address or location.

A short **History** can be recorded as well as the name of the person who helped transport the animal.

The **cause of injury** and information about any donation made at the time of the admission can be recorded. The **initials/name** of the person admitting the animal can also be entered. The actual time of day that the patient was admitted is automatically stored and is displayed in the **Patient Info** window.

You can record information about any **donations** including the amount, type (check, credit card, cash) and details such as the check or credit card number. Note that the data in this field is **NOT** encrypted so you should not record the entire credit card number here.

You can also record the name or initials of the person doing the admission, some short details about when the animal was captured (i.e. “this morning”) and who transported the animal to your facility.

If enabled on your system, you can also record information about how the animal was collected. This is useful when collecting aquatic animals for an aquarium. Press the **Collection details** link and a form will appear that allows you to specify random details about the collection, the method used (i.e. dipnet, hook and line, etc) as well as the depth and water temperature.

The **Release where found** check box can be selected to indicate that this patient is supposed to be released where it was found or if the finders indicated interest in being involved with the release.

When the **Ok** button is pressed, the new patient is added.

At this point, the patient is in the system, but the following needs to be done in order to complete the entry:

- The physical exam findings and problem list should be entered.
- The patient's location/enclosure must be specified.
- The treatment plan must be specified.

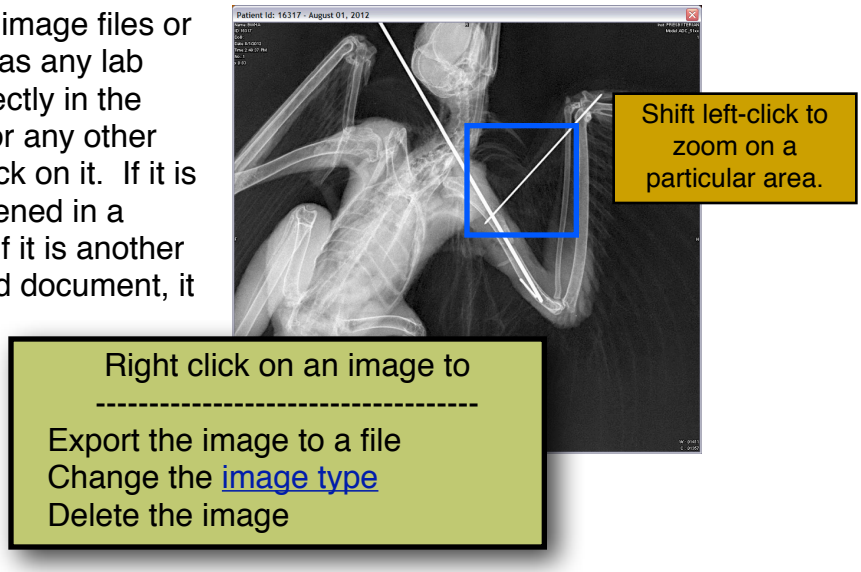
All active patients must have a valid location and treatment plan specified.

Viewing the patient chart

The patient chart is accessible by double-clicking on the patient in either the patient or the enclosure/cage list. The chart is divided into three sections:

- The **Patient Summary** - This section displays a patient overview and includes things such as the admission date, species, the age, and the number of days in rehab. It also shows the problem list, where the patient was found and any other special notes.
- The **Action Bar** - This section has a series of links to various functions that allow you to edit the patient's information or treatments as well as manage the problem list, add reminders and also to add new record entries.
- The **Medical Record Entries** - This section has each record entry listed with the most recent at the top. Each entry includes the date and time it was made, the initials of the person making the entry as well as the patient's location when the entry was made. Each entry also displays the patient's weight, body condition score and leftovers if specified, in addition to the actual text of the entry. Note: the system can be configured to show only the last 12 months of entries, for example. To see the entire set of entries if they are not already displayed, scroll to the bottom of the chart and press the **Display entire record** link.

- Any attachments such as image files or other documents, as well as any lab results are embedded directly in the entry. To view an image or any other attachment, just single-click on it. If it is an image file, it will be opened in a separate viewer window. If it is another type of file such as a Word document, it will be opened in the appropriate application, assuming the application is installed on the computer.


Patient Id: 16317 - August 01, 2012
Shift left-click to zoom on a particular area.
Right click on an image to

Export the image to a file
Change the image type
Delete the image

The Action Bar

The **Action Bar** has the following entries that allow you to make record entries, view data and charts, and setup treatments.

Patient info
This function allows the patient's basic information to be modified. This command also allows many different patient characteristics and attributes to be set that affect how the system operates. Click here for more information.

New entry
This function allows you to add a new entry to the medical record. Click here for more information.

Treatment plan
This function allows you to modify this patients individual treatment plan. Click here for more information.

Problems
This function allows you to manage a patient's problem list. Problems can be added and removed. An initial and end date can be specified and you can mark if a problem has been resolved. Click here for more information.

Historical data
The function allows you to view and graph all types of data including imagery, weight profiles and lab results. Click here for more information.

Finder/Collection info
You can view/edit the information about where this patient found or collected by clicking this link. A form similar to the New patient form will appear with fields for entering information about where the patient was found and any facility where it may have been transferred from.

Add reminder
This function allows you to set reminders for this patient. Click here for more information.

View reminders
This function allows you to view all existing reminders for this patient. Click here for more information.

Samples
This function allows you to view all samples stored for this patient. Click here for more information.

Export
This function allows you to export a patient's record to a file that can be viewed at a later date or emailed as an attachment. The exported file will include all entries and lab results. It does not, however, include any of the chart's images. These need to be exported separately. When you press the **Export** link, you will be prompted for a folder in which to save the file.

Cost estimator
This function creates a cost estimate that summarizes the care that this patient has received. Click here for more information.

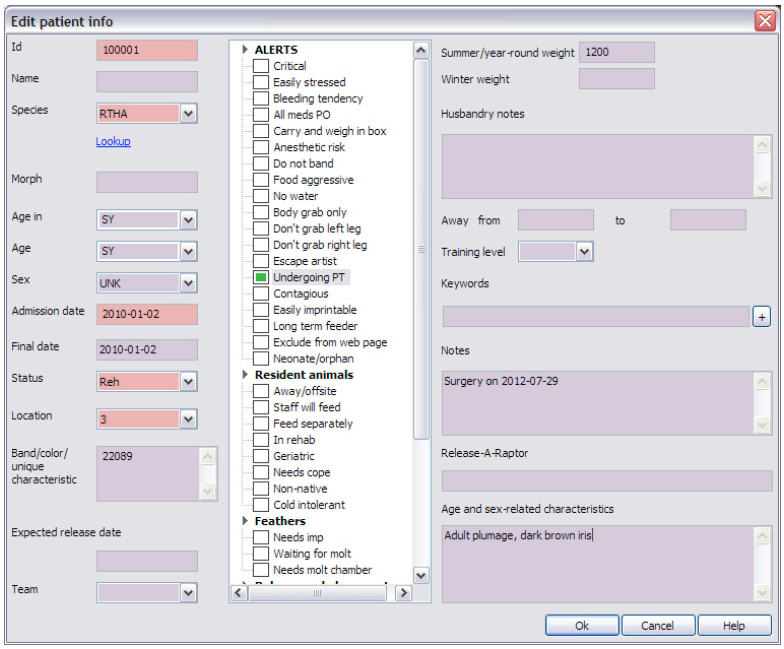
Search
This function allows you to search for any word or phrase in the entire chart. After entering the search text, any matching text will be highlighted in the record and it will be highly visible when you scroll down in the chart.

Print cage card
This function allows you print a card suitable for hanging on the patient's kennel or enclosure. .

Changing the patient's basic information

Basic patient information such as species, sex, age, and a whole range of other attributes can be viewed and changed by clicking on the **Patient info** link in the **Action Bar** on the patient's chart. The most commonly made changes that are made here involve the patient's location and status (i.e. In Rehab, Released, Died, etc).

The following fields are on this form:



- **Id** - This number is automatically assigned by the system and should rarely or never need to be changed.

- **Name** - This field is primarily used for resident animals that may have a name.

- **Species** - The species is indicated by an abbreviation. For birds, the 4-letter abbreviations specified by the USGS Bird Banding Lab (BBL) are typically used, although, this is not absolutely required. For non-avian patients, you can used any scheme that works for you. Many facilities use the genus/species as the basis of the abbreviation. For example, the opossum is *Didelphis virginiana* and its abbreviation could be **DIVI**. Another option is to create easily recognized abbreviations for a species so the opossum could be **OPOS**. Any abbreviation can be used as long as two species do not have the same abbreviation. The species abbreviations are defined in the **Species Editor**.

- **Morph** - Any color morphology or subspecies information. This is useful for species such as screech owls that have different feather colors.

- **Age In** - The age on admission.

- **Age** - The current age. This age should be updated as necessary. For example, all birds traditionally gain a year of age on Jan 1.

- **Sex** - Male, female or Unknown.

- **Admission date** - The date of admission

- **Final date** - The date when the patient is finalized (i.e. release, died, euthanized, etc.).

The format for all date fields is: `ccyy-mm-dd`. For example, July 12, 2012 would be

2012-07-12

You can always double-click in any date field to bring up a calendar date picker.

- **Status** - The current patient status. The basic choices are described in in
- this table. There may be additional status codes that are specific to your installation.

- **Location** - The patient's current location. It is very important that this be kept up-to-date.

- **Band/color/unique characteristic** - Any characteristics that uniquely identify this patient. This is useful to tell this animal apart when in a group. It can be an ID band number, an ear tag number, an ink pen color mark, or even an unique behavioral trait.

- **Expected release date** - The date you expect this patient to be ready for release. This is used in the **Event Planner** to plan release events.

- **Team** - The team that this patient is assigned to. This feature may not be enabled on your system.

- **Summer/year-round weight** - The ideal weight (in grams) for this patient. This value is used for the summer or year-round if a winter weight is not also specified.

- **Winter weight** - The ideal weight (in grams) during the winter months.

- **Husbandry notes** - Any unique husbandry related notes for this patient.

- **Away from/to** - Dates during which this patient will be away from the facility. This is primarily used for resident animals that are out on programs. In these cases, feeding instructions for these patients will not be printed out on the daily treatment sheets. These dates are ignored unless the **Away/offsite** checkbox is checked (see below).

- **Training level** - Used for resident animals that are trained or worked by handlers. Each patient can be assigned a training level. This setting is used in the **Handler Training Log** which allows you to keep track of which handlers have been trained on

which animals. The training level ranges from **Beginner** to **Master**. If you leave this field blank, then this animal will not be included in the **Handler training** function.

- **Keywords** - Each patient can have keywords assigned to them for easy retrieval at a later date. For example, a patient that is part of specific treatment trial can be tagged with a special keyword. You can enter any random text or press the **+** button and choose from a pre-defined list of keywords. Any number of keywords can be added and should be separated with commas. A quick search for patients based on many characteristics including keyword can be quickly performed using the **Advanced Search Tool**.

- **Notes** - This field is used to store any information that you want to keep readily available. This information is displayed at the top of the patient's record in the **Summary** area and printed on the daily treatment sheets.

- **Release event** - You can use this field to store information about an upcoming release event that this patient is scheduled for. You can manually enter information here but this field is typically filled in automatically by the **Event Planner**.

- **Age and sex-related characteristics** - This field can store information about any characteristics that help identify the age or sex of this patient. For example, "adult plumage, dark brown iris" might be entered for an adult hawk. This information is displayed later when creating a **Release/Banding Record** as it helps fill the age and sex fields on that form correctly.

Status	Description
DOA	dead on arrival
EOA	euthanized on arrival
D24	died within 24 hours
E24	euthanized within 24 hours
D	died after 24 hours
E	euthanized after 24 hours
Reh	currently in rehab
R	released
PR	currently a permanent resident
T	transferred
ESC	escaped

The check boxes

There are also a whole list of check box choices that can be made. When checked, a short description of each is displayed at the top of the patient's record in the **Summary** area and printed on the daily treatment sheets. The options are summarized in the following table. The entries marked with a * are for informational purposes only and do not affect the behavior of the program. Note that the check boxes are arranged in a few groups such as **Alerts**, **Resident animals, etc**. These groupings are merely

organizational and are for clarity. They do **not** indicate that only resident animals, for example, can use the check boxes in the **Resident animal** section.

name	description
Critical*	This patient is critical.
Easily stressed*	This patient is easily stressed.
Bleeding tendency*	The patient has had a bleeding tendency on previous blood collections.
All meds PO	Used for patients that are not yet self-feeding. Used to ensure that all meds are given manually. Birds with this option selected will automatically be marked as a **GRABBER** on the daily treatment sheets.
Carry and weigh in box*	This patient should be carried and weighed in a box. Typically used for young patients/orphans that are delicate and should be handled as little as possible.
Anesthetic risk*	This patient has had anesthesia problems in the past.
Do not band*	This patient has had issues with id bands on its ankle in the past. This is a reminder to **not** replace a band while in rehab or prior to release.
Food aggressive*	This patient is food aggressive and can be dangerous when feeding.
No water*	This patient should not be given water for some reason such as a foot bandage.
Body grab only*	This patient should not be grabbed by the legs. Typically used for long-legged avian species or a patient that should not be grabbed by the legs.
Don't grab left leg*	This patient has an injury to the left leg.
Don't grab right leg*	This patient has an injury to the right leg.
Escape artist*	This patient has a tendency to escape so be careful when entering its enclosure.
Undergoing PT	This patient is currently undergoing physical therapy. Selecting this option will place this patient on the **Physical Therapy Report**.
Contagious*	This patient is potentially contagious.
Easily imprintable*	This patient is easily imprintable. Useful for young vultures or any other easily imprintable species.
Long term feeder	
Exclude from web page	This patient's chart should not be displayed on the **RaptorMed** web page.

name	description
Neonate/orphan	This patient is a neonate/orphan. Depending on how your system was configured, this may be used to determine where this patient prints on the daily treatment sheets. This setting is also used to include patients on the Orphans ready for transfer report.
180 days reported	This patient has been in rehab over 180 days and this status has been reported to appropriate authorities. This checkbox can be checked manually but it is also set automatically by the Greater than 180 days report.
Active patient	This checkbox can be used to indicate if this is an active patient and not one that is in the final stages of rehab. This checkbox can be used in the **Active patients report** (**Reports ▶ Active patients**) and in the active/ inactive patient filter on the main window.
Feed/treat separately	This option is used to indicate animals in a group are to be treated/fed separately. Typically, patients that are housed individually are treated individually using their individual treatment plan. Likewise, patients in a group are treated as a group and use a Group Treatment. By checking this box, this behavior can be overridden such that all patients in a group will use their individual treatment plans. This is useful when there are patients that are housed in a group but that require individual treatments. Note: this actual effect of this check box depends on your configuration. In some cases, this check box is ignored and in some cases, it is only active if ALL patients in a specific location have the check box checked.
Away/offsite	This patient is away or offsite. If checked, the **Away From/To** dates are used to determine if an entry for this patient should be printed out on the daily treatment sheets.
Staff will feed	These animals are to be fed by special staff and will appear on a special “Staff will feed” treatment sheet. This option may not be used in your configuration.
In rehab	This is used to indicate that a resident animal is sick/injured and should be temporarily treated by the rehab staff. Typically, treatments for resident and rehab animal are printed out on separate sheets. This allows this behavior to be modified. Note that that actual behavior depends on how your installation was configured.
Geriatric*	This is an old patient. Of course, this distinction is subjective and depends on the individual and the species.
Needs cope	This avian patient needs to have its beak coped. It will appear on the **Cope report**.

name	description
Non-native	This patient is not a native species. This setting can be automatically configured for each species using the **Species Editor**. These patients are typically ignored when generating year-end report for each state and for the USFWS.
Cold-intolerant	This patient is cold-intolerant. It will appear on the **Cold-intolerant patients report**.
Needs imp	This avian patient needs to have its feathers imped and it will appear on the **Imp report**.
Waiting for molt*	This bird's feathers are damaged badly and cannot be imped. It will likely be a long-term patient while it waits to molt new feathers.
Needs molt chamber*	This bird's feathers a damaged badly and cannot be imped. Checking this option puts in on the waiting list for a molt-chamber, if available.
Release where found*	This patient should be released where it was found. This may be because the finder/public requested it be returned when ready for release or because it is in the best interest of the patient.
Finder present at release	This indicates that the finder would like to be present at the release.
Do NOT release where found	This patient should **NOT** be released where found. This is typically for cases where the patient was injured intentionally (i.e. gunshot). This flag will be set automatically when you select one the illegal causes of injury (click **here** for more information).
Has placement	This patient is non-releaseable but permanent placement has been found. These patients will **not** be shown on the **Patients that need placement report**.
NR	This patient is non-releaseable and permanent placement has not been found. These patients will be shown on the **Patients that need placement report**.
NR on arrival	This patient was non-releasable on arrival. Typically this option is selected along with the **NR** option. If selected, this patient will be excluded from any release rate calculations made by **RaptorMed**. This option is used for patients that are clearly non-releasable on arrival but are either unique or rare and are worth keeping for placement.
Release approved*	This patient has been approved for release. This may also be referred to as **Transfer approved** when the patients are orphans that have been approved for transfer to another facility to complete the rehab process.
Needs live prey test	This patient needs a live prey test prior to release. It will be shown on the **Patients that need live prey test report**.

name	description
Does NOT need live prey test	This patient does not need a live prey test prior to release. This can be used for patients (i.e raptors) with eye damage. Typically, many of these would need vision and/or live prey testing before release. This option can be used for those patients that have eye damage but are deemed fit for release without further testing. These patients will **not** be shown on the **Patients that need live prey test report**.
Needs falconer eval	This raptor needs a falconer evaluation prior to release. These patients will be shown on the **Falconer eval waiting list report**. This is typically used for species such as peregrine falcons that may require special flight training prior to release.
Needs ophtho consult	This patient needs a ophthalmogist's evaluation prior to release. These patients will be shown on the **Ophtho consult waiting list report**.
Band return	This patient has had a band report after release. It will appear on the **Band reports report**. These patients typically will have a **Band Report** record attached to there chart.
Treated with chemotheapeutics	This animal has been treated with a chemical that makes it non-releasable. This is typically used for fish in an aquarium setting. These animals will appear on the Chemotherapeutic exposure report.

Chapter 2

[Making record entries]
[Entering lab results, procedure reports and examinations]
[Tracking the patient's problem list]

Making medical record entries

Medical record entries can be made for an individual patient, for all patients in the same enclosure (click here), or for multiple enclosures all at once (click here). Which method you use depends on whether the patient is being treated individually or as part of a group.

Individual entries

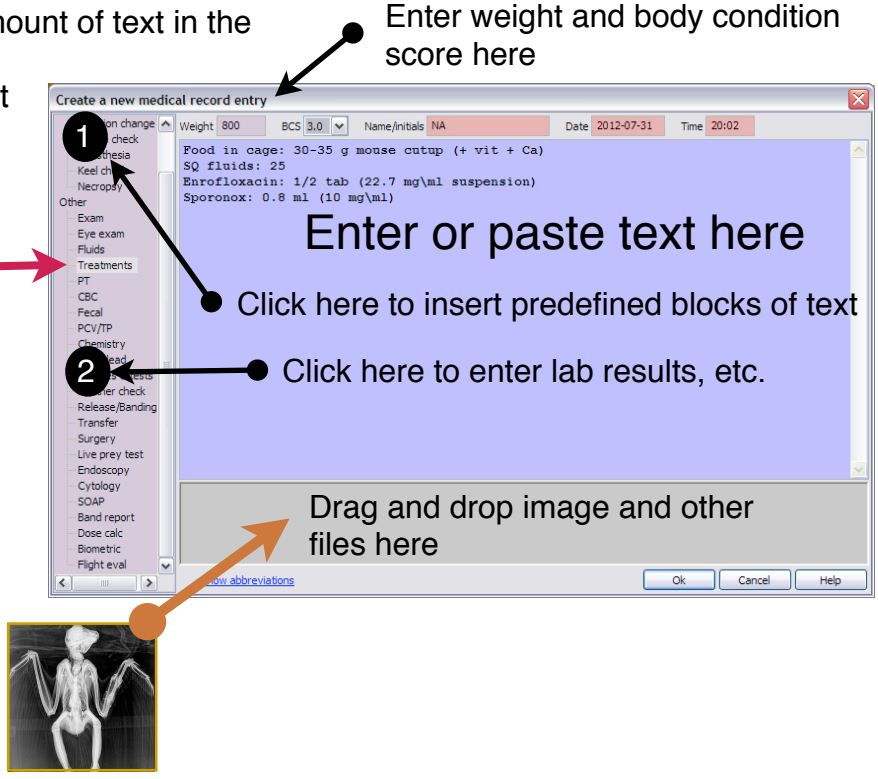
Medical record entries can be a combination of hand-typed, text, text that is automatically inserted by the system, images, and results of lab tests or examinations. This function is accessed by clicking on the **New entry** link in the **Action Bar** on the patient's chart.

RaptorMed uses a 24 hour clock so 1 PM is 1300. Times can be entered with or without a colon separating the hours and minutes.

The weight and body condition score are entered at the top. Both fields are optional. The weights are entered in grams by default. If configured for it, the weights can also be entered in kilograms. To enter a weight in kilograms, append a "k" after the weight value as in "1.2k". The initials of the person making the entry, the date and time, however, are required fields. Note that the date and time fields are filled in with the present date and time so you may need to change these if you are making an entry for something that happened early that day or on an entirely different day altogether.

You can enter any amount of text in the main text area or you can cut and paste text in from any other application.

Double-clicking on any of the entries in **Area 1**, will automatically insert a predefined block of text. This is useful to quickly enter text that is used repeatedly. The list of choices in this area is configurable and can be changed at any time.


Enter weight and body condition score here
Create a new medical record entry
Weight 800
BCS 3.0
Name/initials NA
Date 2012-07-31
Time 20:02
Food in cage: 30-35 g mouse cutup (+ vit + Ca)
SQ fluids: 25
Enrofloxacin: 1/2 tab (22.7 mg\ml suspension)
Sporonox: 0.8 ml (10 mg\ml)
Enter or paste text here
Click here to insert predefined blocks of text
Click here to enter lab results, etc.
Drag and drop image and other files here
Ok
Cancel
Help
1
2

You can have **RaptorMed** alert you if a newly added weight varies by a specified percentage from the previous weight.

Double-clicking on any of the entries in **Area 2** allows you to enter lab results, treatments and many types of other data. Click here for more information.

Double-clicking on the **Record treatment** item in **Area 2** (the **red** arrow in the picture) will automatically insert the patient's complete treatment plan into the record. This includes everything that was specified in the treatment plan as well as drug concentrations and amounts. All you have to do is modify it to match what was actually done. This allows you to make a very accurate and complete entry in almost no time at all.

Any file can also be dragged onto the form and added as an attachment. For image files, the JPEG file type is recommended. Other file types, such as Word or Excel files or other image file types can also be dragged and dropped onto the medical record.

When you drag and drop and image file, the **Image import** window appears. This allows you to choose the image **type**. Here are some possible choices:

- Radiograph - the default choice
- Zoomed radiograph
- Endoscopic image
- ID photo
- Microscopic image
- Photograph
- Scanned document

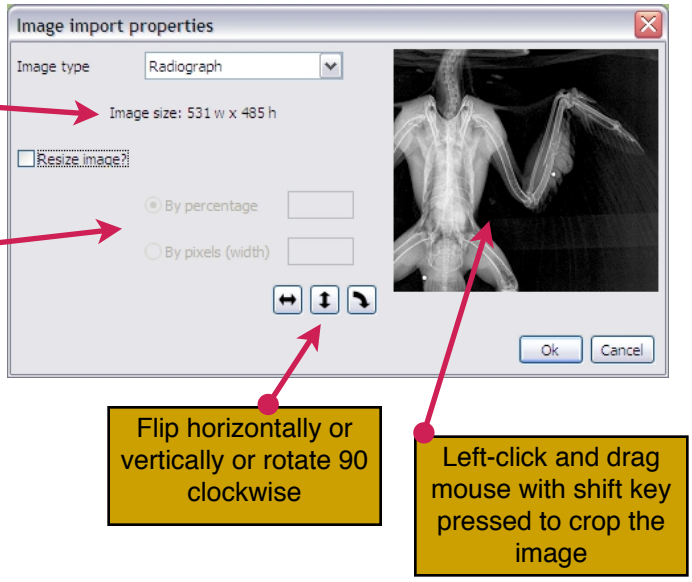


Image import properties
Image type
Radiograph
Image size: 531 w x 485 h
Resize image?
By percentage
By pixels (width)
Ok
Cancel
Image dimensions
Resize by percentage or specify the width in pixels
Flip horizontally or vertically or rotate 90 clockwise
Left-click and drag mouse with shift key pressed to crop the image

When a image is marked as a **Radiograph**, it will be used by the

Cost Estimator when calculating the total cost. For this reason, make sure you set the image type correctly. Otherwise, the cost estimate will be inaccurate. It is not uncommon to save a zoomed or cropped version of a radiograph that focuses on an area of interest. For these images, choose **Zoomed radiograph** for the image type so these images will not counted by the **Cost Estimator** as another radiograph.

When you add an image, the **Image import** tool allows you to resize, crop, rotate and flip the image. It is recommended that images be resized before saving, especially if taken with a modern digital camera since those images tend to be quite large and have many more pixels than are actually needed for a good-quality image. A good recommendation is to crop and resize an image to a width of about 1000 pixels. This still provides good quality and saves storage space. When you drag and drop the image, the dimensions of the image will be displayed.

Do **not** resize radiographs as you usually want to maintain the highest image quality so that you can zoom in on small details later.

To resize the image, check the **Resize image** check box and then choose either **By percentage** or **By pixels**. **By pixels** is usually more helpful. Then enter the desired width (such as 1000 pixels). The image aspect ratio will be preserved.

You can flip and rotate the image as well by pressing the corresponding buttons. Finally, you can crop the image by left-clicking and dragging a box on the image preview while holding the **Shift** key down. Once you have the image way you want it, press the **Ok** button. If you made a change that you don't like, simple press the **Cancel** button and start over.

Group entries

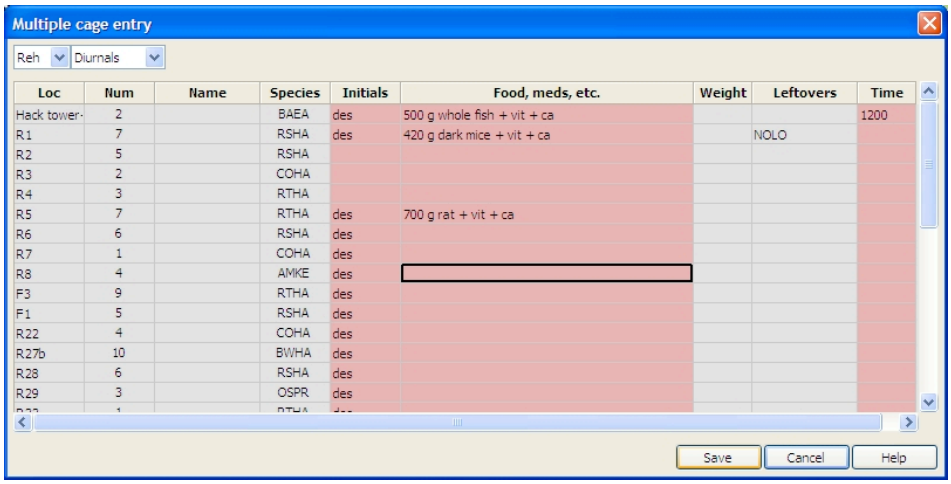
To make an entry for all animals in a specific enclosure, right click on the enclosure in the **Enclosure** list on the main screen and choose **Record group entry** from the popup menu. A form as is shown here will appear. It displays what the currently ***proposed*** treatment is. You may simply modify the existing text or completely replace it if necessary. Be sure to enter your initials and the correct date and time. After pressing the **Ok** button, a separate and identical entry will be made in the chart of each of the patients in this enclosure. Click here to see how to set up a group treatment.

Note: The proposed treatment is for ***each*** patient. So, as in the pictured example for Cage 2, you should enter 100 grams (not 25) if you fed each of 4 patients 25 grams apiece. Always remember to multiply the treatment food amounts by the number of patients in the location. Otherwise the resulting entries made in the patients' chart will not be correct.

In addition, you can press the **Insert patient list** link and a list of each patient's id, band/tag, age and sex information will be inserted. This is helpful when you need to record notes about each patient in an enclosure.

Multiple enclosure entries

To enter treatments for multiple enclosures at once, choose **Tools ▶ Multiple cage entry** from the main menu. A form will appear that contains a spreadsheet that lists all the enclosures that have at least one patient in them.



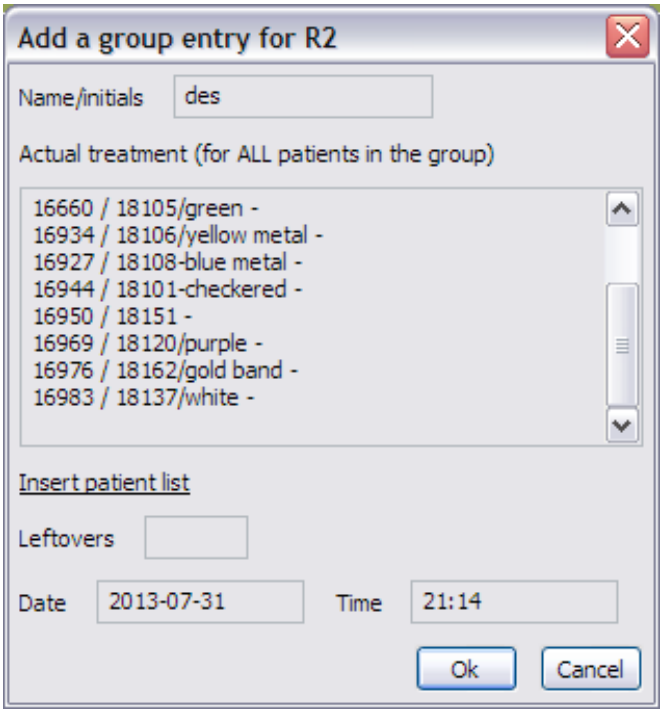
You can filter the list by **Nocturnal** or **Diurnal** and by **Rehab** or **Resident**. There are columns that allow you to enter the initials of the person who did the treatment/feeding, the actual treatment or food provided, the leftovers (if any) and the time that the treatment occurred.

There is also a column for the weight that can be filled in if the patient was weighed. Obviously, it only makes sense to fill in the weight if the enclosure has only one patient.

The **Initials**, **Food**, and **Time** columns must all be filled in. If not, then the row in the table will be ignored. This is convenient as you may only want to record treatments for some of the enclosures.

As a time-saver, you can right-click on a cell in the **Initials** and **Time** column and choose **Fill down** to copy the current cell's value down to the bottom of the column.

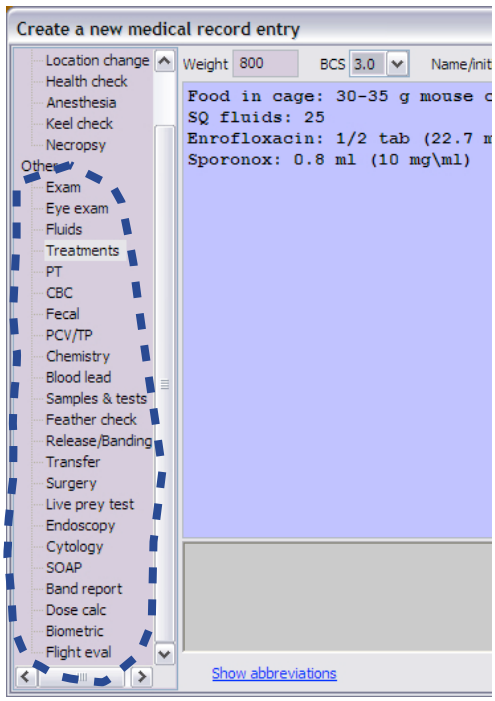
Once you have entered everything, press the **Save** button and the records for each



patient in each of the **Locations** in the table that you filled in will be updated.

Entering results of laboratory tests and examinations

Results for laboratory tests, examinations, surgery, transfers and a whole host of other important records can be attached to a patient's file by clicking on the appropriate links listed vertically on the left side of the medical record entry form. Results for the following lab tests, exams, procedures can be added to a patient's record:



Examinations
- Physical exams
- Eye exams
- Biometric measurements
- Flight evaluations
- Feather checks

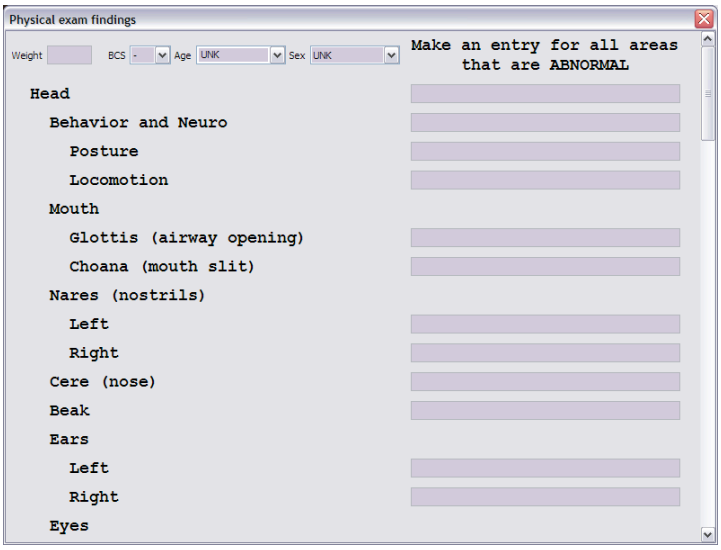
Laboratory tests
- CBC
- PCV/TS
- Serum chemistries
- Blood lead
- Fecal exams
- Cytologic exams
- Miscellaneous samples and tests

Procedures
- Surgery reports
- Endoscopy reports
- Physical therapy

Miscellaneous
- Release/band use reports
- Transfer reports
- Band reports
- SOAPs
- Dose calculations
- Fluid calculations

Physical exams

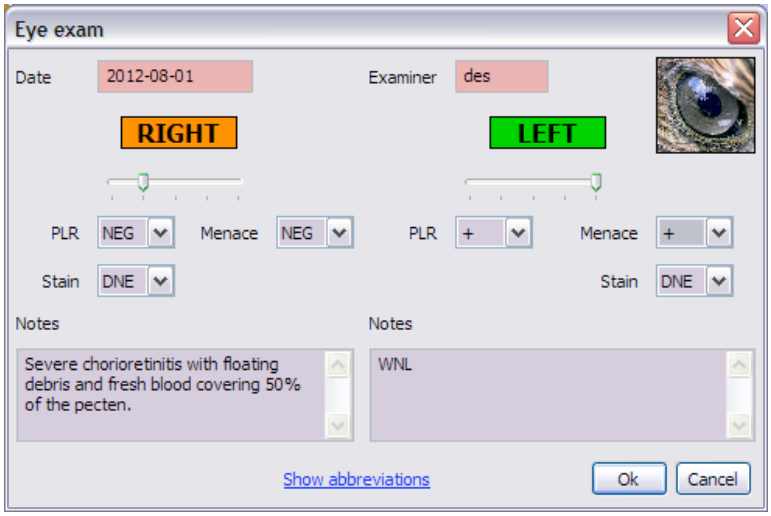
The physical exam form allows you to make entries for any abnormal finding. There are different sections that cover all body areas and systems. When you have completed your entry, press the **Ok** button and your entries will be formatted and inserted into the patient's record. It is usually recommended that you leave an entry blank if the corresponding area or system is normal. Alternatively, you may want to make an entry indicating that no problem was found to make it clear that the exam was complete thoroughly. Note that the actual entry fields on the form depend on the species group that the patient belongs to. In addition, the fields are customizable so the fields that you see may differ from the screenshot.



You can also specify the patient's weight, body condition/keel score, age and sex making entries in the appropriate fields at the top of the form.

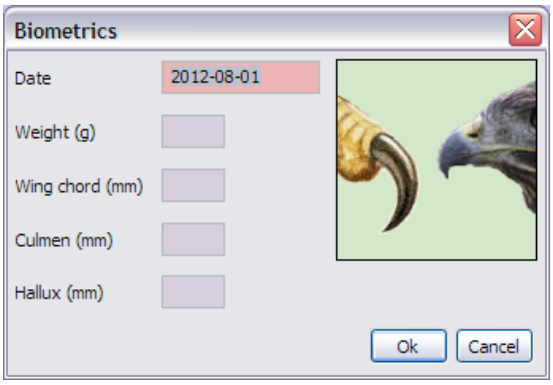
Eye exams

The eye exam form allows you to record your observations and to color code each eye to indicate the severity of the damage. The color coding scheme is very subjective, but if used consistently, it can be very effective in demonstrating changes over time. The color codes range from **red** (completely blind) to bright **green** (perfect vision). There are fields to record the PLR and menace response as well as the results of a corneal stain. The **Notes** fields are used to record any other finding including results of a fundic exam.



Biometric measurements

Biometric measurements can be recorded using this form. The actual measurements to be recorded are based on the animal's species group. For example, you can record the weight, wing chord, culmen length and hallux length for a bird and you can record various carapace measurements for a turtle.

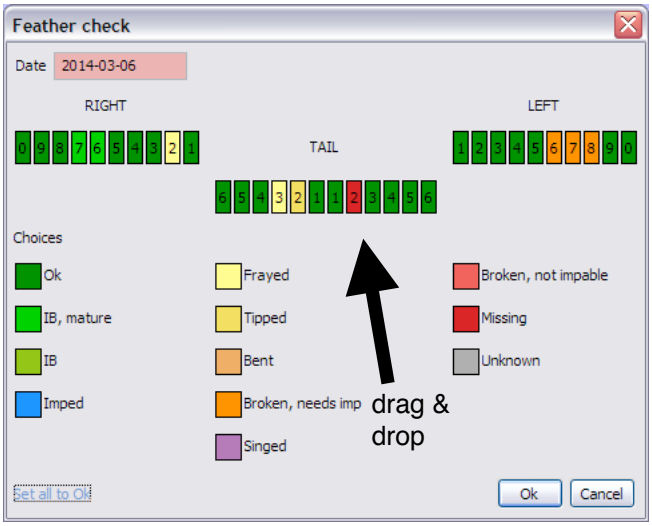


Flight evaluations

Results of flight examinations can be recorded and scored using a color code. Scores for both the ability to fly and the sound level can be recorded. The color coding scheme is very subjective, but if used consistently, it can be very effective in demonstrating changes over time. The color codes range from **red** (unable to fly or very loud) to bright **green** (perfect/silent flight).

Feather checks

Records of feather condition can be recorded for the primary feathers and the tail feathers. The form is oriented as if the bird was laying on its back for the exam. So the left side of the form is for the right wing. Each feather state is color-coded. Greens indicate better or good feather quality while yellows, oranges and reds indicate progressively worse condition. The condition of a specific feather can be recorded simply by dragging a color from the color palette to the appropriate feather.



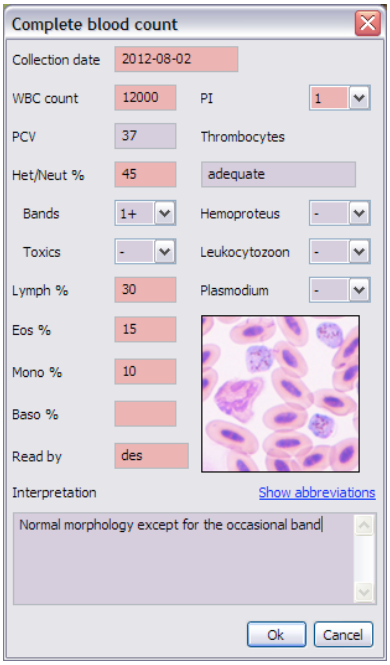
The feather colors default to gray/unknown. You can set them all to dark green/Ok by pressing the **Set all to Ok** link.

CBC

Complete blood count results can be recorded and you can also specify findings regarding hemoparasites, cell morphology, and platelets. The percentages of each cell type must total to 100%. It is important, although optional, that you enter the corresponding PCV, if known, as the actual white count will be adjusted up or down based on the PCV. The following formula is used to calculate the WBC count:

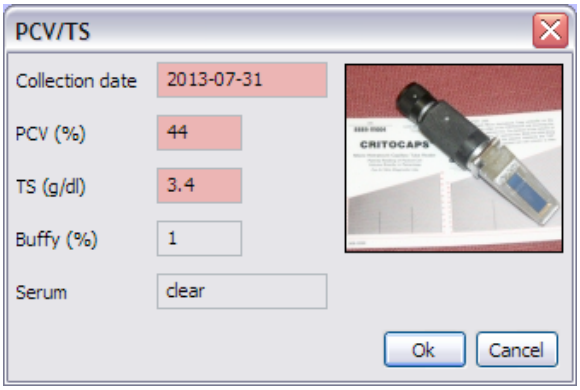
$$count = count_{observed} \times PCV / 45$$

If the PCV is not supplied, then a correction is not made.



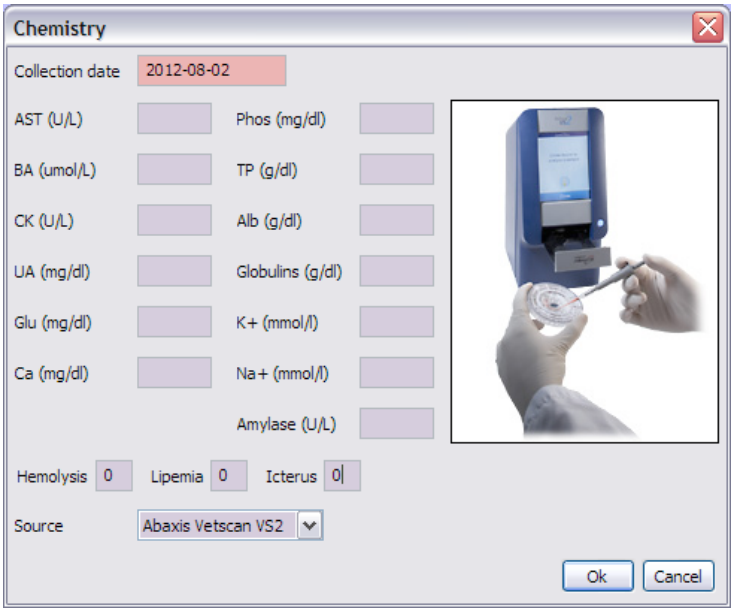
PCV/TS

The packed celled volume (PCV), buffy layer and total solids (TS) can be recorded. The units for PCV and buffy are % and g/dl for TS. A subjective interpretation of the plasma can also be recorded.



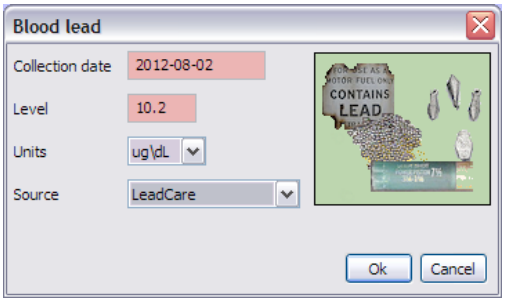
Serum chemistry

Blood chemistry results can be recorded using this form. The actual fields present depend on whether the patient is a mammal or avian/exotic. The source of the results can also be chosen from a configurable list.

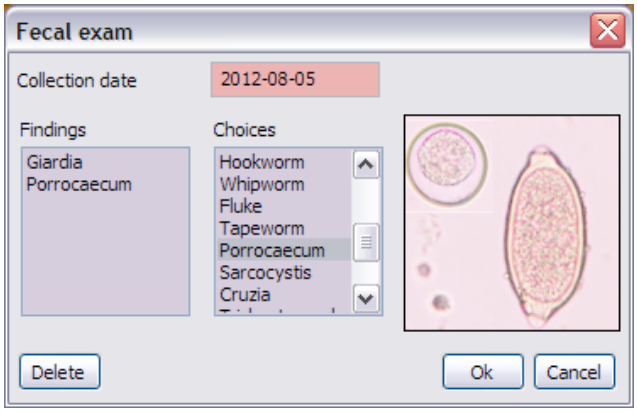


Blood lead

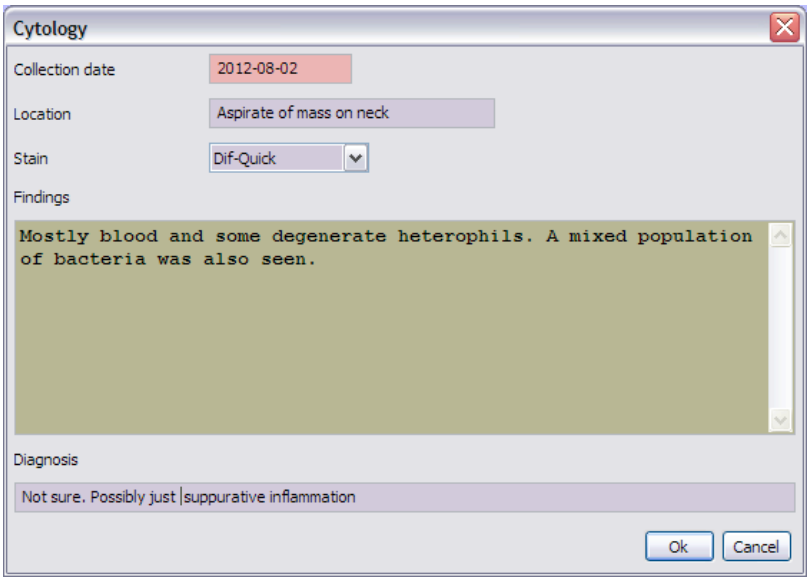
Blood lead values can be recorded using this form. The units (i.e. ug/dL or ppm) and the source of the results can be selected from a configurable list.



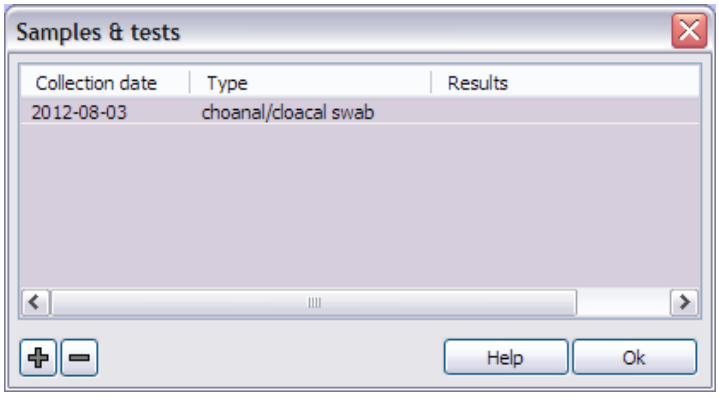
Fecal exams
Results of fecal exams can be recorded with this form. The list of choices is configurable. To select an entry, double-click on it in the **Choices** list and it will be added to the **Findings** list. To remove a selected choice, double-click on it in the **Findings** list. If the exam was negative, simply leave the **Findings** list empty.



Cytologic exams
Cytologic exam results can be recorded using this form. The list of **Stains** is configurable. There are fields to enter the **Location** of the sample, your **Findings** and the **Diagnosis**.



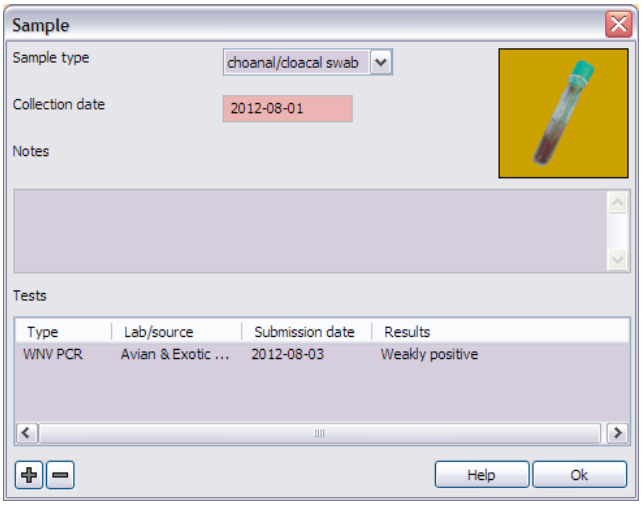
Miscellaneous samples and tests
Samples and test results that do not fit into one of the above mentioned pre-defined categories can also be recorded in **RaptorMed**. After double-clicking on the **Samples & tests** choice, a list of current samples will be displayed. You can add a new one by pressing the **+** button or removed the selected one by



pressing the **-** button. You can edit the selected sample by double-clicking on it.

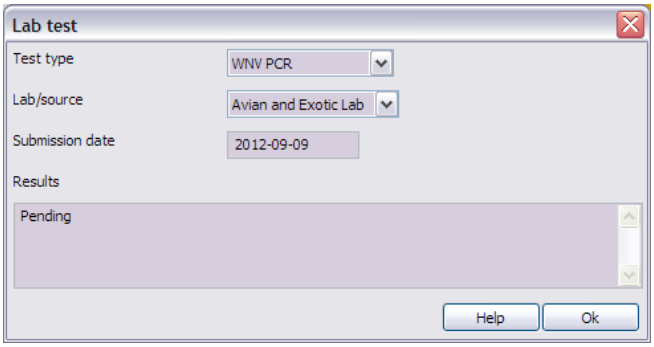
When you add or edit a sample, you must select the **Sample type** and **Collection date**. There is also an optional **Notes** field. You can add a new test by pressing the **+** button or remove the selected one by pressing the **-** button. You can edit the selected test by double-clicking on it.

Note: Samples can only be added to existing medical record entries. So, you cannot create a new entry then add a sample to it before saving the entry first.



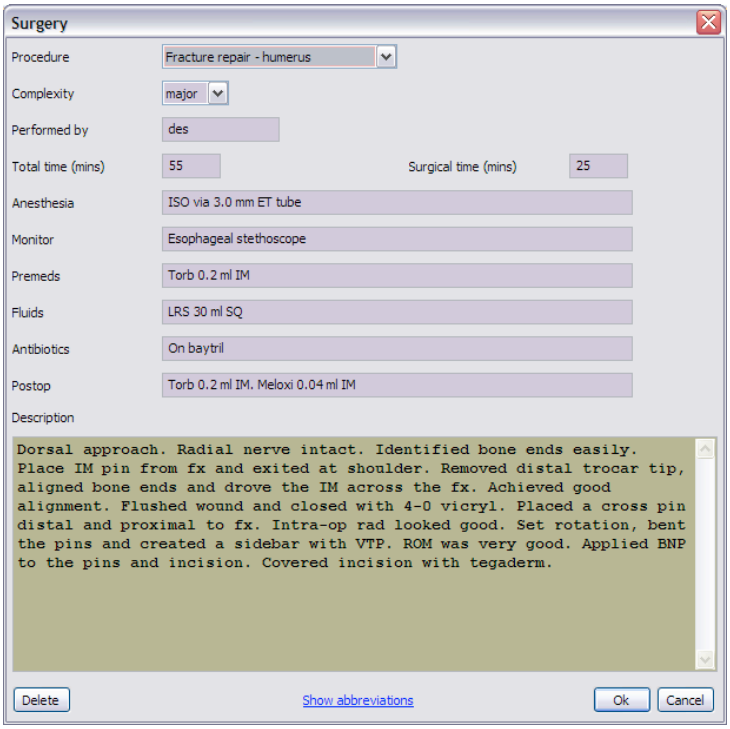
The sample form lists all tests run on that sample.

The test result form allows you to specify the **Test**, the **Lab**, the **Submission date,** and any **Results**.



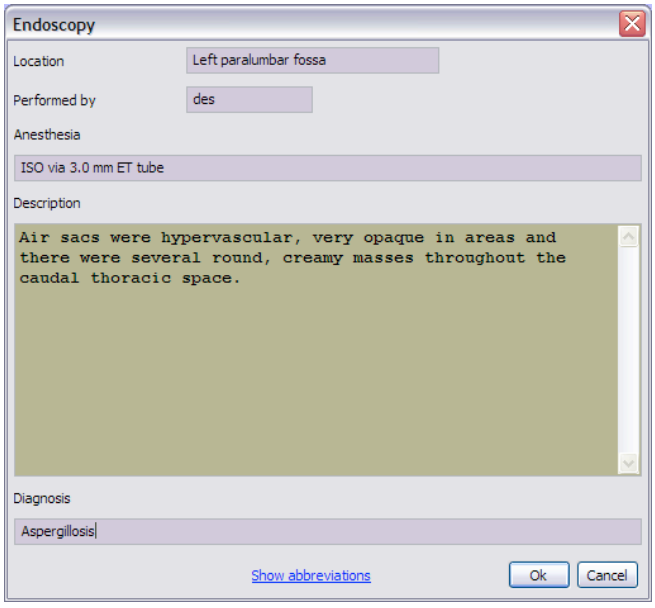
Surgery reports

Surgical reports can be recorded using this form. The actual procedure performed is chosen from the **Procedure** list. The list of choices is configurable. The **Complexity** field allows you to specify if this was a **Major** or **Minor** procedure and this choice is used by the Cost Estimator when calculating the patient's total cost. You can also record the **Total time** and the actual **Surgical time**. This is very useful to track trends and gauge your surgical skill over time. There are also fields to record the **Anesthesia protocol**, your **Monitoring methods**, **Pre-medications**, **Fluid therapy**, **Antibiotics,** and any **Post-op medications**. Each of these fields is pre-filled with commonly-used text and this text can be edited or replaced completely as needed. There is also a large edit field to record the actual procedure.


Surgery
Procedure
Fracture repair - humerus
Complexity
major
Performed by
des
Total time (mins)
55
Surgical time (mins)
25
Anesthesia
ISO via 3.0 mm ET tube
Monitor
Esophageal stethoscope
Premeds
Torb 0.2 ml IM
Fluids
LRS 30 ml SQ
Antibiotics
On baytril
Postop
Torb 0.2 ml IM. Meloxi 0.04 ml IM
Description
Dorsal approach. Radial nerve intact. Identified bone ends easily. Place IM pin from fx and exited at shoulder. Removed distal trocar tip, aligned bone ends and drove the IM across the fx. Achieved good alignment. Flushed wound and closed with 4-0 vicryl. Placed a cross pin distal and proximal to fx. Intra-op rad looked good. Set rotation, bent the pins and created a sidebar with VTP. ROM was very good. Applied BNP to the pins and incision. Covered incision with tegaderm.
Delete
Show abbreviations
Ok
Cancel

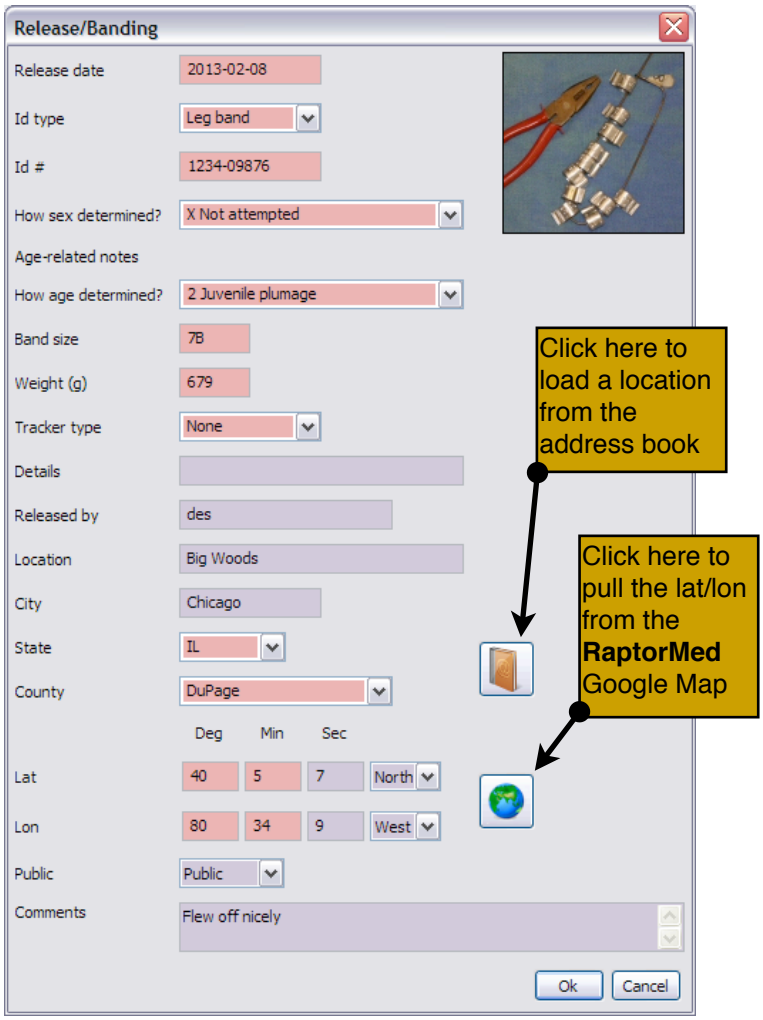
Endoscopy reports

Endoscopic procedures can be recorded using this form. There is a field to record the location that was scoped (i.e. trachea, air sac, etc), a field to record the anesthetic protocol used, and a field to actually record the procedure and findings as well as a diagnosis if there was one.



Physical therapy
Physical therapy sessions can be recorded with this form. You can select which limb received the therapy as well as the beginning and ending angles for each of the major joints. This data is graphed in the Physical therapy chart.

Release/band use records
Releases (with or without a federal band or other identification device such as an ear tag) are recorded with this form. The **Id type** list allows you to choose the type of identification device. There are several options (including "**None**") to choose from. The **Id number** field is used to store the unique identification number that is on the leg band or ear/wing tab.



If you choose "**Leg band**", then additional fields will be enabled that allow you to enter all the information that is required to be submitted to the USGS Bird Banding Lab (BBL). **RaptorMed** can then create a file that can be imported automatically by the BBL's Bandit Software to submit your banding data. Click here for more information on how **RaptorMed** integrates with Bandit. If your facility does not federally band your avian patients on release or for non-avian patients, this form will be simpler and will not have all the fields shown here.

If you do submit banding data to the BBL, it is very important that you make the correct entries in this form or your data may not be accepted. This is especially important for the **How sex determined**, **How age determined**, **Id number,** and **Band size** fields. The Age-related notes field will contain any notations that you made in the **Patient info** form, usually when the patient was first admitted. These notes can help to serve as a reminder for how the age was determined. Select the type of tracking device in the **Tracker type** list and enter any additional details in the **Details** field.

You can also enter information about any tracking devices that may have been attached prior to release.

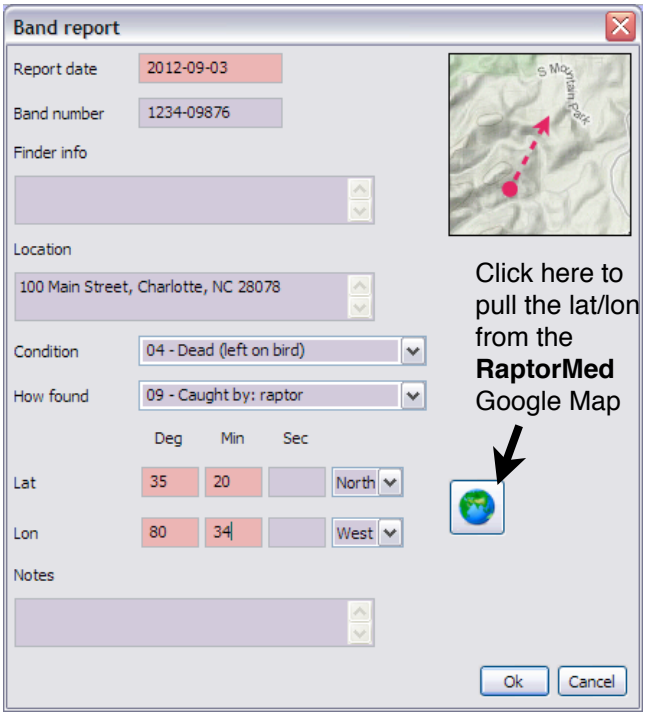
You should also enter the location where the release took place, including the latitude and longitude, if known. If the animal was released at a known site in the **Address Book**, you can import all the relevant information automatically by pressing the **Address Book** button and selecting the appropriate site. Click here for more information on the **Address Book**.

You can also pull the exact latitude and longitude coordinates from the **RaptorMed Google Map**. To do this, load the Google Map into your browser. Find the location on the map and left-click on the location. Now, back in **RaptorMed**, press the **Google Map** button and the coordinate fields will be filled in automatically for you. Click here for more information on the **RaptorMed Google Map**.

You can also record whether the release site was on **public** or **private** land.

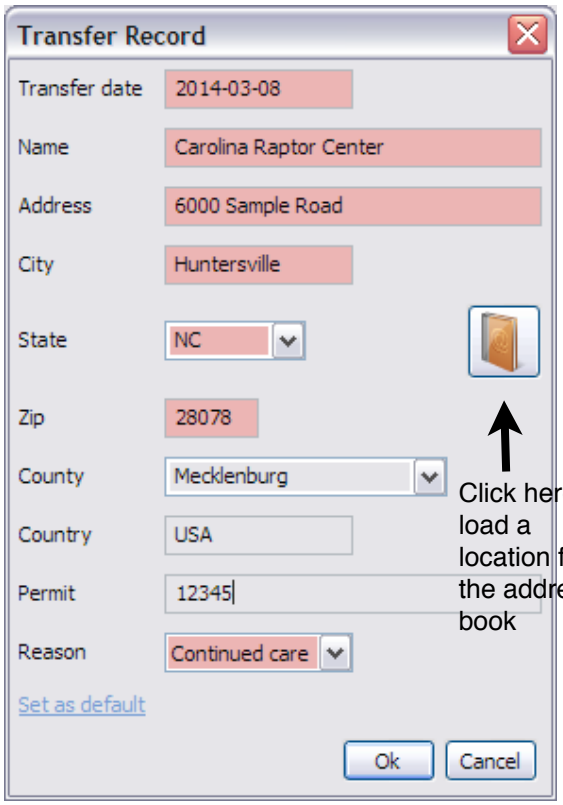
Band report records
These records are used to record a band report. That is, when a banded animal is spotted or recovered in some way after release. The **Condition** and **How found** codes are usually stated on the official band reports that you will receive from the Bird Banding Lab. If the report came directly from the person who found the banded animal, choose the most accurate codes for the situation.

In cases where the animal is readmitted as a new patient, it is important to attach the band report record to the **original** patient's chart, not the new patient's chart.



Transfer records
All transfers should be recorded with this form. This is very important as this information is required on the year-end US Fish and Wildlife Service (USFWS) report and may also be required on your state reports. Animals are transferred for several reasons including:

- For continued care with the hopes of eventual release
- For permanent placement if non-releasable
- Transferred live or dead for scientific/ education use
- For falconry or propagation programs



You must enter the information for the recipient including the permit number. If the animal was transferred at a facility in the **Address Book**, you can import all the relevant information automatically by pressing the **Address Book** button and selecting the appropriate facility. Click here for more information on the **Address Book**.

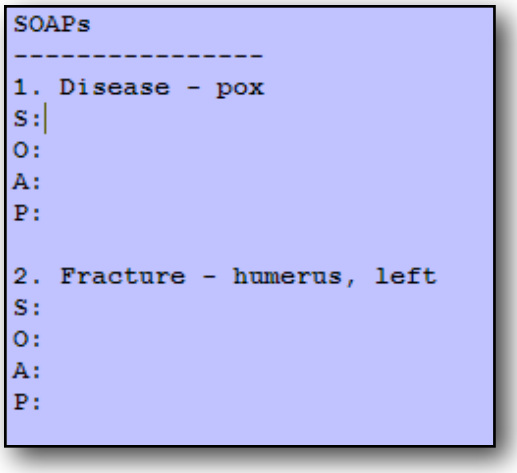
The **Reason** choices are:
- Release
- Continued care
- E/S - educational/scientific study
- F/P - falconry/propagation
- Other

Note: When transferring a patient, the patient status should be set to **T** and the **Final date** should be set appropriately. Click **here** for more information on finalizing a patient. The one exception is when the patient is deceased (with status of **DOA**, **D**, **D24**, **EOA**, **E**, or **E24**) and it is transferred dead for education or scientific purposes. In this case, the status should be left unchanged and should **not** be changed to **T**.

You can press the **Save as default** link to save the current choices. These will be used as the default values the next time you create a Transfer record.

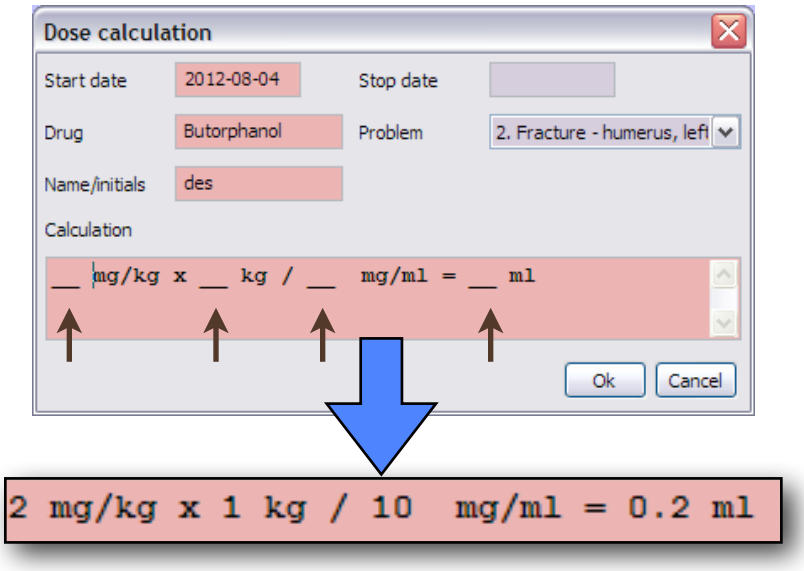
SOAPs

Clicking on the SOAPs item inserts a pre-formatted block of text into the medical record that has a SOAP entry for each unresolved problem (click here for more on **Problems**). This simply provides a shortcut so that you don't have to type as much. Note that use of this feature, and SOAPing in general, is completely optional and may not be necessary at your facility.

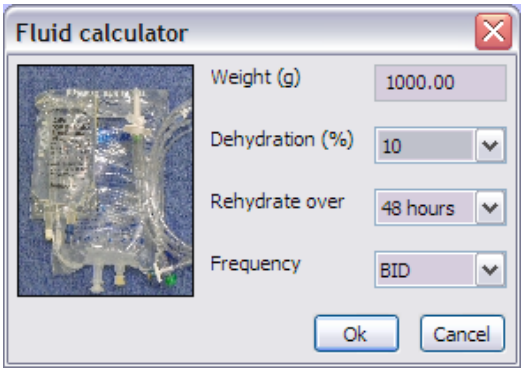


Dose calculations

This feature is used to document how drug doses were calculated. This is generally only useful in an educational setting (i.e. a vet school) where students are required to show their math. After clicking on the **Dose calc** item, a form appears that allows you to specify the drug and the problem for which the drug is meant to help. There is also a field that is pre-filled with the dose calculation formula. The student must edit the formula and enter the actual numbers to show the calculation. It is meant to be a manual process so that the student is forced to do the calculation. The areas indicated by the arrows in the screenshot are to be replaced with actual numbers.



Fluid calculations



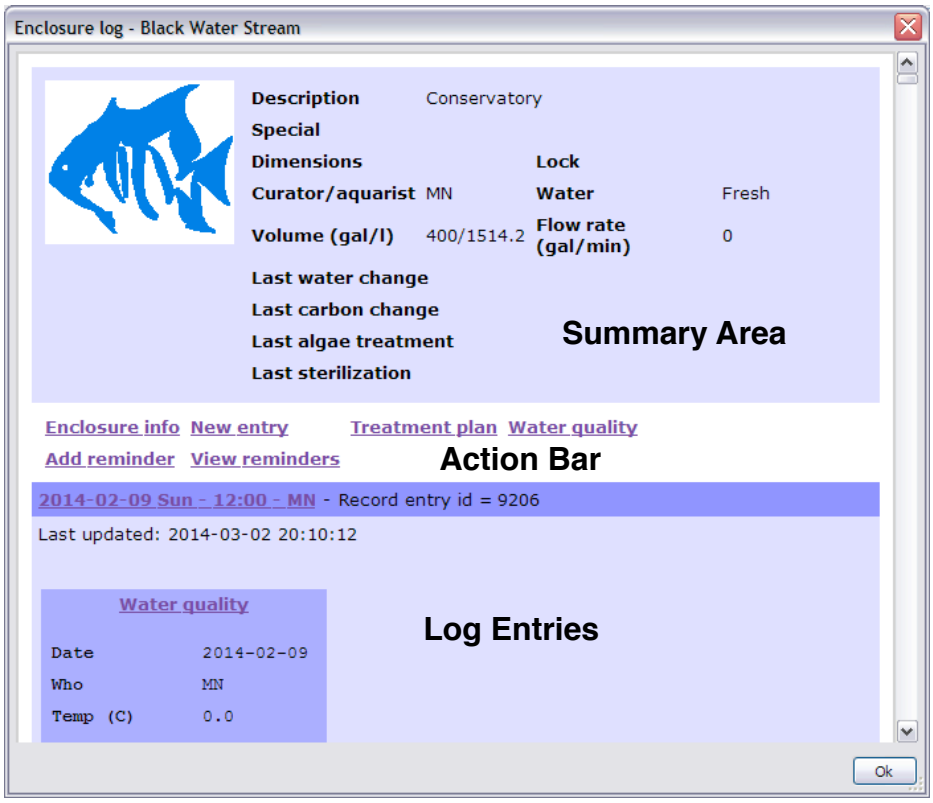
This tool does quick fluid calculations for you. After clicking on the **Fluids** item, the fluid calculator window will appear. This form allows you to select the dehydration level, how quickly you want to replace the deficit and how often you want to administer the fluids. It will then perform the calculation and insert the corresponding fluid therapy plan into the patient's chart. Note that it assumes a value of **50 ml/kg/day** for maintenance. If you have entered a weight in the patient's record, then it will be pre-filled in the **Weight** field. Otherwise, you have to enter a weight manually.

Enclosure logs and treatments

Treatment plans for an entire enclosure can be setup and recorded in an enclosure log. When an entry or treatment is recorded, a duplicate entry can also be made in the individual chart for each animal in that location. This function is more versatile than the standard Group treatment function described above and was designed for organizations like aquariums that need may have complicated treatment and or feeding plans for their various enclosures. In general, you should use either the enclosure records or the group records as there is not much reason to use both simultaneously.

To access the enclosure log, right click on an location and select **Enclosure log**. The enclosure log screen will be displayed. It has a **Summary Area** at the top that includes various attributes and details for aquatic systems as well notations on when various maintenance and cleaning functions were performed. There is an **Action Bar** below the **Summary Area** that allows you to

- View/edit the enclosure properties
- Create a new log entry
- Edit the treatment plan
- View water quality data (for aquatic systems only)
- Add a reminder for this location
- View reminders for this location



The actual log entries are listed below the Action Bar with the most recent entry displayed at the top.

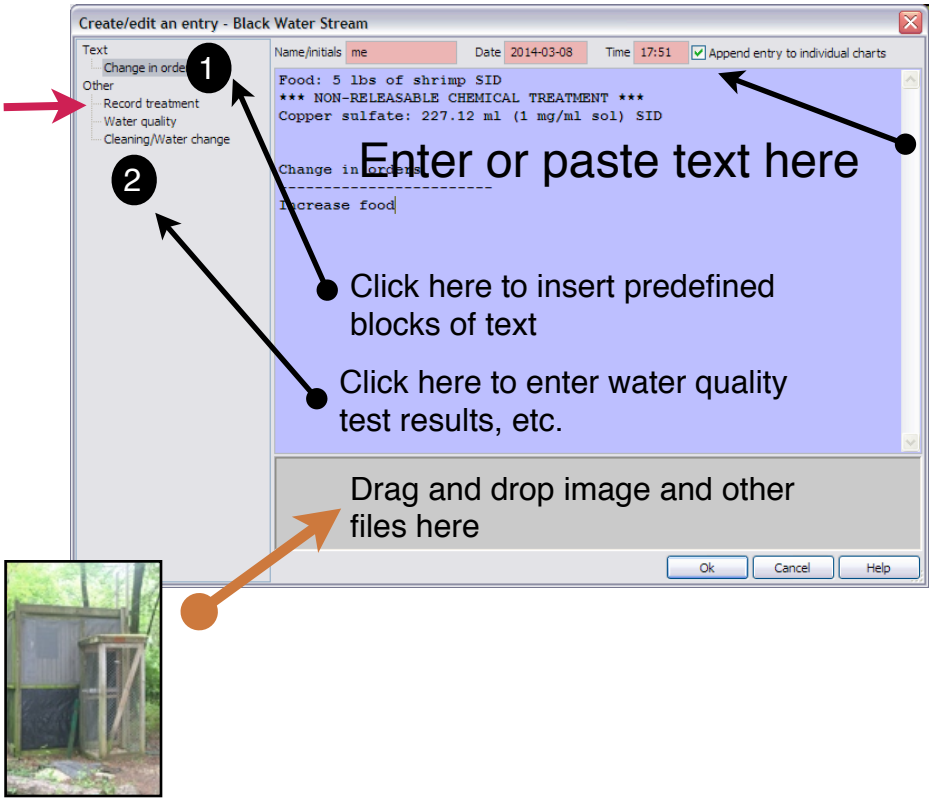
Adding an enclosure log entry

To add a new log entry, press the **New entry** link. A form will appear that is very similar to the one that is used to create a new individual patient record entry.

You can enter any amount of text in the main text area or you can cut and paste text in from any other application.

Double-clicking on any of the entries in **Area 1**, will automatically insert a predefined block of text. This is useful to quickly enter text that is used repeatedly. The list of choices in this area is configurable and can be changed at any time.
Double-clicking on any of the entries in **Area 2** allows you to enter lab results, treatments and many types of other data. See below for more information.

Double-clicking on the **Record treatment** item in **Area 2** (the **red** arrow in the picture) will automatically insert the enclosure's complete treatment plan into the record. This includes everything that was specified in the treatment plan as well as drug concentrations and amounts. All you have to do is modify it to match what was actually done. This allows you to make a very accurate and complete entry in almost no time at all.



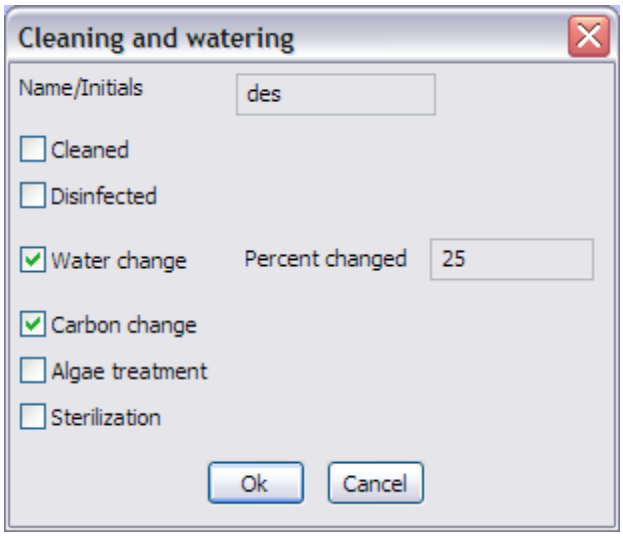
Click here to append a copy of this entry in each animal's individual chart.

Any file can also be dragged onto the form and added as an attachment. For image files, the JPEG file type is recommended. Other file types, such as Word or Excel files

or other image file types can also be dragged and dropped onto the enclosure log. For more information on importing image and document files, look here.

Recording aquarium maintenance

To record that an aquarium/system has been cleaned or disinfected, double-click on **Cleaning/water change.** A form will appear that allows you to select what was done (cleaned, disinfected, carbon change, etc) and to specify the amount of water changed as a percentage of the entire volume. Enter the initials or name of the person responsible for the work and press **Ok** to append this the enclosure log.

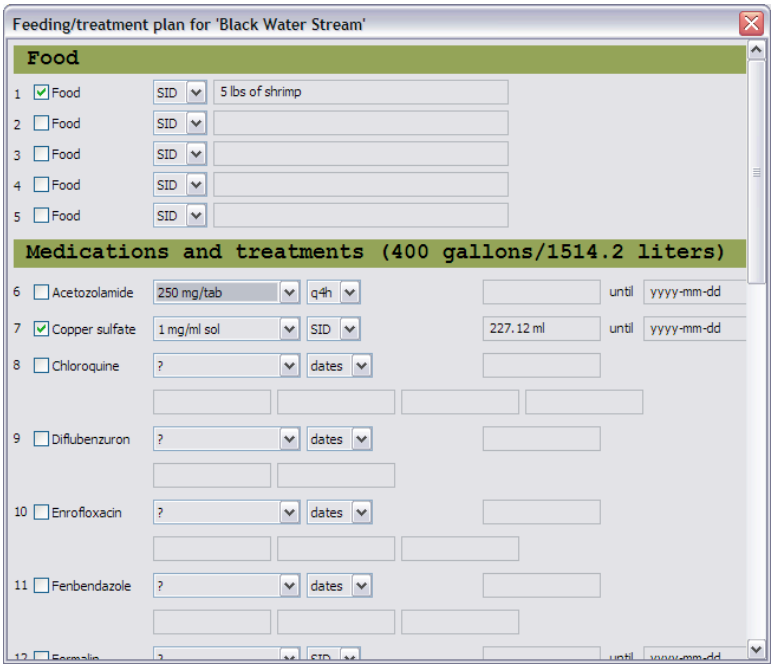


Recording water quality tests

To record a water quality test, double-click on Water quality. A form will appear that allows you to enter values for many different parameters. Press **Ok** to append this the enclosure log. All the water quality data can be viewed and graphed as described below. Note that this function is only available for aquatic enclosure (i.e. any enclosure with the **Fresh water** or **Salt water** check boxes selected).

Creating an enclosure feeding/treatment plan

To setup a the feeding/treatment plan for an enclosure, press the **Treatment plan** link. The Treatment plan form will appear that allows you to specify various types of food. You can also setup and schedule various medication and chemical treatments for aquatic systems. Finally, you can schedule various things such as water changes and water chemistry tests.

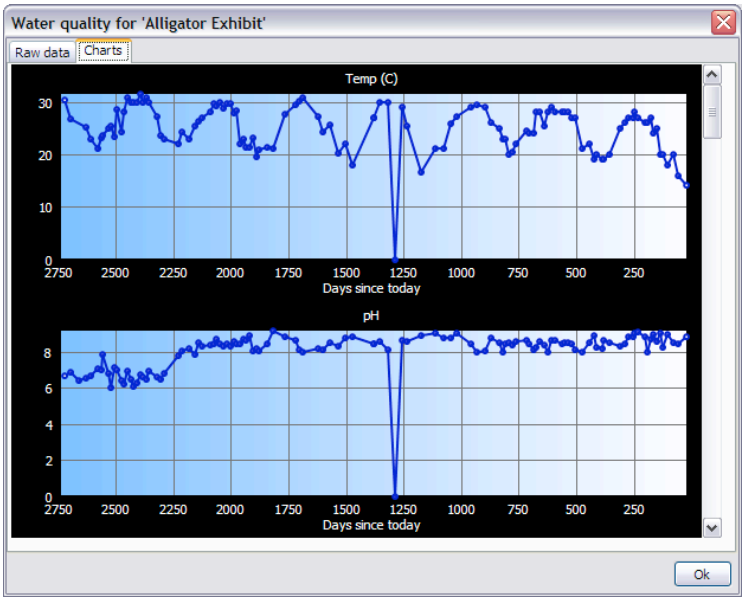

Feeding/treatment plan for 'Black Water Stream'
Food
1 Food SID 5 lbs of shrimp
2 Food SID
3 Food SID
4 Food SID
5 Food SID
Medications and treatments (400 gallons/1514.2 liters)
6 Acetozolamide 250 mg/tab q4h until yyyy-mm-dd
7 Copper sulfate 1 mg/ml sol SID 227.12 ml until yyyy-mm-dd
8 Chloroquine ? dates
9 Diflubenzuron ? dates
10 Enrofloxacin ? dates
11 Fenbendazole ? dates

Be sure to check the box before any item on the tre atment plan that you wish to select. For the various medications, you can select the treatment form (if there is more than one) and the frequency as well as specific treatment dates or an until date for medications that are done daily. If properly configured, RaptorMed will automatically calculate the dose based on the desired dosage, the volume of the system and the concentration/ form of the medication.

To specify a date, just double-click in any of the date fields and a calendar will appear that allows you to choose a date.

Viewing water quality data

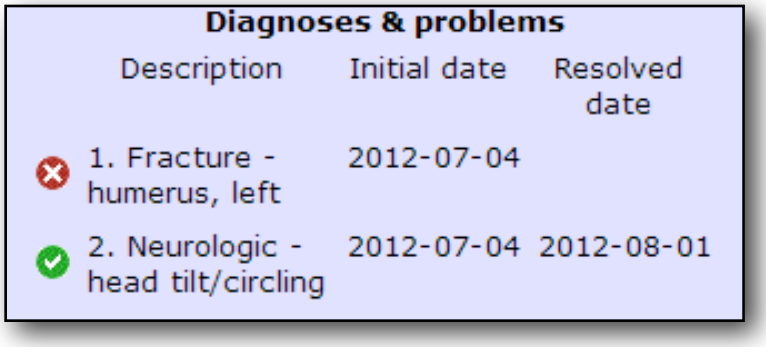
To view the water quality data for an enclosure, press the Water quality link. A window will appear with two tabs. One tab displays the data in tabular/spreadsheet form. The other tab graphs the data.



Note that this function is only available for aquatic enclosure (i.e. any enclosure with the **Fresh water** or **Salt water** check boxes selected).

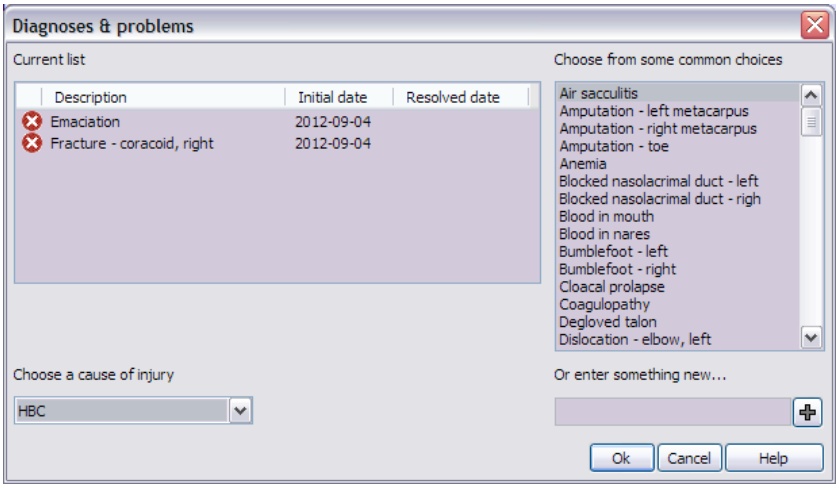
Problems

You can maintain a problem list for each patient. This list is displayed on the patient's main chart in at the top in the **Summary** area. Problems can be added and removed. An initial and end date can be specified and you can mark if a problem has been resolved. A **green** check indicates that the problem is resolved while a **red** x indicates it is still an issue.



To add or edit problems, click on the **Problems** link in the **Action Bar**.

The current list of problems is displayed to the left. You can right-click on an existing problem to remove it, set the initial or resolved dates or to switch its status. When a problem is marked as resolved, the **Resolved date** is automatically set to the current date.



You can add a new problem from a list of pre-configured problems by double-clicking on any of the entries in the list to the right. If there is a problem not currently in the list that you would like to add, just enter it in the edit field in the lower right and press the **+** button.

There are few problem choices that have special meanings:

- **Toxin - Lead** - Be sure to use this choice for all confirmed lead poisoning cases as this information is used in optional Part E of the US FWS year-end report.
- **Orphaned** - Be sure to use this choice (and only this choice) for all healthy orphans as healthy orphans are reported differently in the Bandit report report that goes to the US Geologic Survey when reporting birds that are released with official federal bands.

Note: since this is a “normal” condition and not necessarily a true problem, these entries are marked as “resolved” with a **green** check when added.

- **orphan** - For the Washington state year-end report, make sure that this word appears in at least one problem associated with each orphan patient.

The system can be configured to treat various problems as “non-problems” and will mark them as resolved with **green** check mark instead of a **red** X when added. This is useful when you want to record various issues and conditions such as “Orphaned” that really are not true problems. Please refer to the Technical Reference Manual for more information.

You can also choose the cause of injury from a list of pre-configured choices. There are a few choices (such as gunshot) that are considered illegal causes of injury by the US Fish and Wildlife Service (USFWS). When one of those choices is selected, a **reminder** will automatically be created to remind you to notify the USFWS. In addition, the patient will be marked as “**Do NOT release where found**”.

The system can assist you in sending an automated update email to USFWS when there is a patient admitted as a result of an illegal cause of injury. Click here for more information.

Chapter 3

[Individual treatments](#)
[Group treatments](#)
[Printing treatment sheets](#)
[Reminders](#)

Treatments

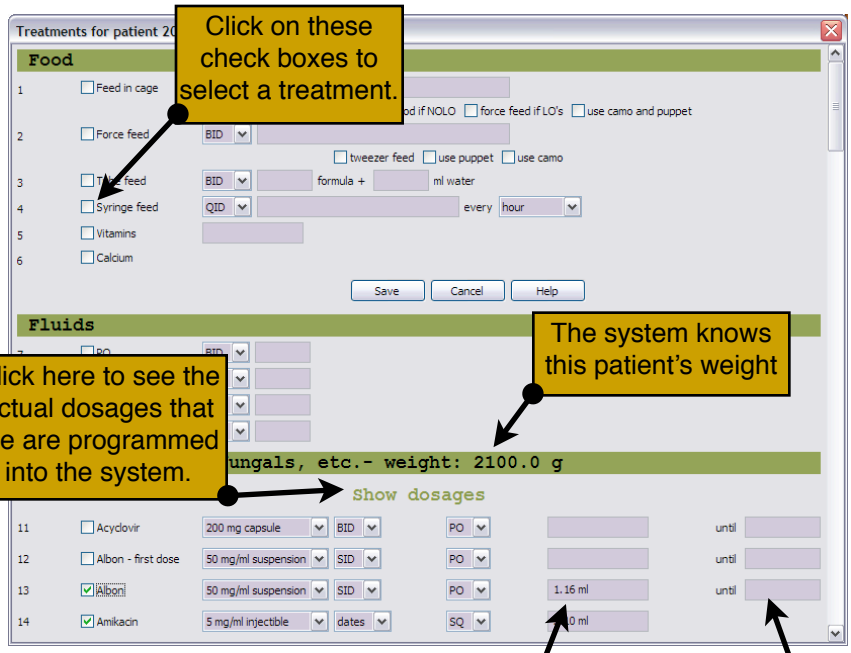
You must specify a treatment for each patient. Each day, treatment sheets are printed and the appropriate treatments are printed based on the date and the time of day. It is not uncommon to print sheets multiple times a day as a patient may need different care in the morning compared to at night. It is also very common for a treatment plan to change during the day and for patients to be moved to a new location. A patient either has an **individual** treatment or is part of a **group** treatment.

All active patients must have a valid location and treatment plan.

Individual treatments

All patients kept in an inclosure by itself will use its individual treatment plan. This treatment plan is accessed via the **Treatments** link in the **Action Bar** at the top of the patient chart. The **Treatment** form appears and it has the following main categories:

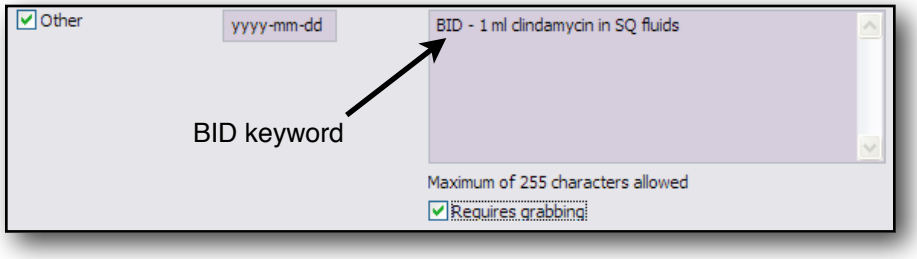
- **Food**
- **Fluids**
- **Antibiotics, antifungals, etc**
- **Analgesics, NSAIDs, etc**
- **Eyes**
- **Ears**
- **Other meds**
- **Miscellaneous** - radiographs, blood collection, surgery, physical therapy, bandage changes, clinician consults, etc.



Each section has many different choices and these choices are configurable based on what your facility needs. Therefore, your screen may differ in appearance than what is shown here.

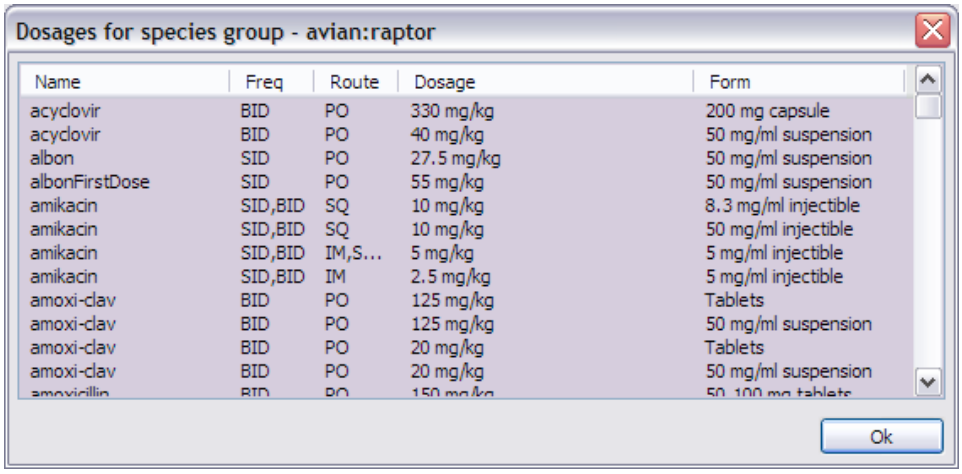
Each choice has a check box that allows the treatment to be selected. In general, each treatment may have a frequency list to allow you to select how often (i.e. SID, BID, TID, etc.) the treatment needs to be done. There may also be options for setting specific dates or for setting a date to continue the treatment until. Remember that you can double-click in any date field to bring up a calendar date picker. If the treatment is for a

drug, the dosage will be automatically calculated for you if the patient's weight has been entered and if your formulary contains a dosage for this drug.



There is a special field called **Other**. This field is used to schedule a treatment that isn't already built-in to the system. After checking this field's check box, you can enter random text describing the treatment. You can either enter a specific date in the date field or you can put the SID, BID, TID keywords in the actual text description to program a treatment that is to be performed at least once or more times per day. The **Requires grabbing** is used to indicate if the patient needs to be grabbed to perform this treatment.

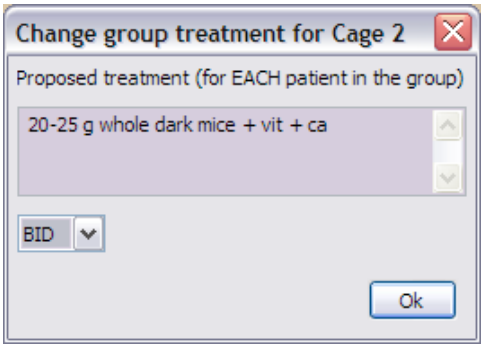
Click the **Show dosages** link to view the dosages that are actually being used by the system for this patient.


Dosages for species group - avian:raptor
Name Freq Route Dosage Form
acyclovir BID PO 330 mg/kg 200 mg capsule
acyclovir BID PO 40 mg/kg 50 mg/ml suspension
albon SID PO 27.5 mg/kg 50 mg/ml suspension
albonFirstDose SID PO 55 mg/kg 50 mg/ml suspension
amikacin SID,BID SQ 10 mg/kg 8.3 mg/ml injectible
amikacin SID,BID SQ 10 mg/kg 50 mg/ml injectible
amikacin SID,BID IM,S... 5 mg/kg 5 mg/ml injectible
amikacin SID,BID IM 2.5 mg/kg 5 mg/ml injectible
amoxi-clav BID PO 125 mg/kg Tablets
amoxi-clav BID PO 125 mg/kg 50 mg/ml suspension
amoxi-clav BID PO 20 mg/kg Tablets
amoxi-clav BID PO 20 mg/kg 50 mg/ml suspension
Ok

Group treatments

When a patient is part of a group of two or more animals, the treatment will be specified by a group treatment plan. In these cases, the animals are usually on more of a maintenance-type plan where individualized treatments are no longer required. To create or edit a treatment plan for a group, right-click on the enclosure/location in the **Enclosure** list on the main screen. Choose **Edit group treatment** from the popup menu. Press the **Yes** button when prompted if you want to proceed. A window will

appear that allows you to enter the treatment plan and to select the frequency (i.e. SID, BID, etc). Note that the treatment plan that you enter is for **EACH** animal in the enclosure. Press the **Ok** button when complete. You can always go back and edit this treatment plan later.



If an animal that is in a group needs a special treatment, there are two ways to accomplish this:

1. Use a reminder. Reminders can be added for a patient to schedule a procedure or treatment. They can be scheduled for a specific day or set to repeat daily until turned off. Click here to see how to setup a reminder.
2. Mark the patient as "**Feed separately**". This will tell the system that, even though this patient is in a group, the patient's individual treatment plan should be used. Click here for more information about setting this option.

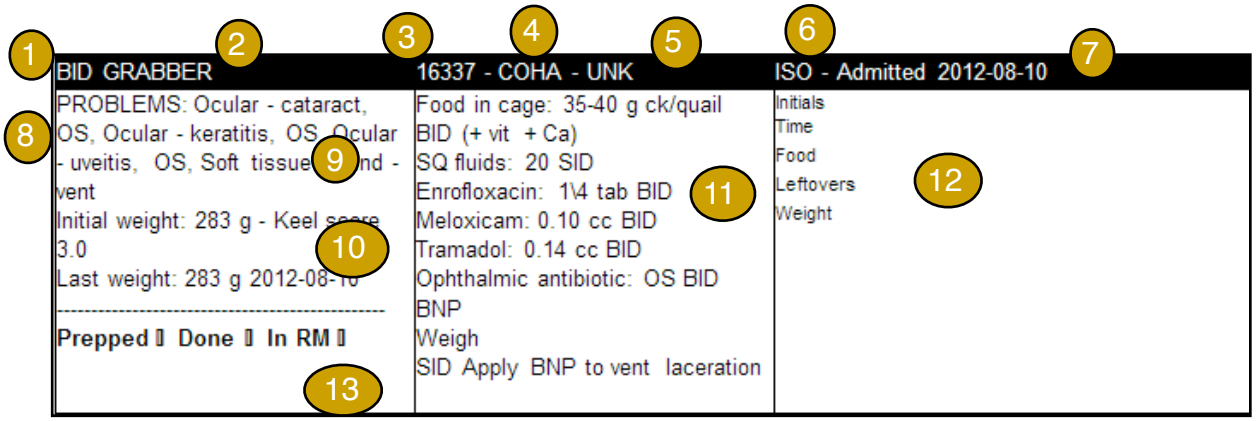
Currently, if one patient is marked as **Feed separately**, then all patients in the enclosure must also be marked as such.

Printing treatment sheets

The treatment sheets that print out are designed to provide a clear and concise synopsis of the patient and the treatment that has been planned for it. The actual format of the sheets that are printed have been customized for your facility so they may be different that what is shown in this example. The following areas and pieces of information may be available on your sheets.

1. How often does this patient need to be treated each day?
2. Does the patient need to be grabbed in order to perform the treatment? The system automatically determines this from the treatment plan. This is helpful as you can utilize less experienced staff and personnel for the "non-grabbers" and use your more experience people for the "grabbers".
3. The patient id
4. The species
5. The age
6. The current location
7. Admission date
8. The problem list
9. Other important notations
10. Weight history

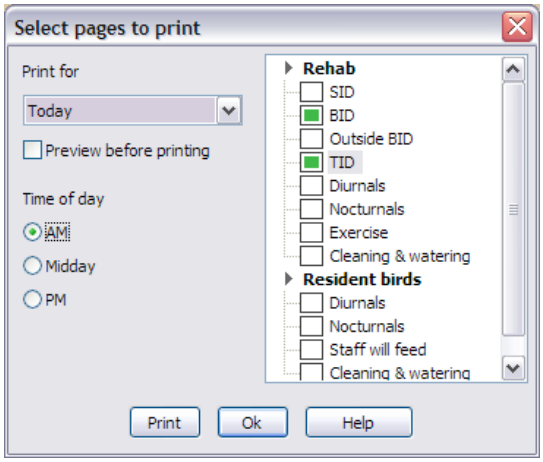
11. The treatments that are required
12. An area to jot down notes
13. Check boxes to indicate that the treatment is done. There is a checkbox to indicate the treatment was prepped, one to indicate it was actually performed and one to indicate if it was recorded in **RaptorMed**.



To print treatment sheets, choose **Tools ▶ Print treatment sheets** from the main menu. A window will appear that allows you to choose which sheets to print, if you want to print for today or tomorrow and it also allows you to preview the printout before printing. The actual appearance of your print selection form may vary as this feature is customized for your facility.

Note that it is good practice to print sheets for the next day at the end of each day. This insures that you will have your treatment sheets ready the next morning. You can never predict when you may have a printer problem or power outage so it is strongly encouraged that you print your sheets as part of your end-of-day procedure.

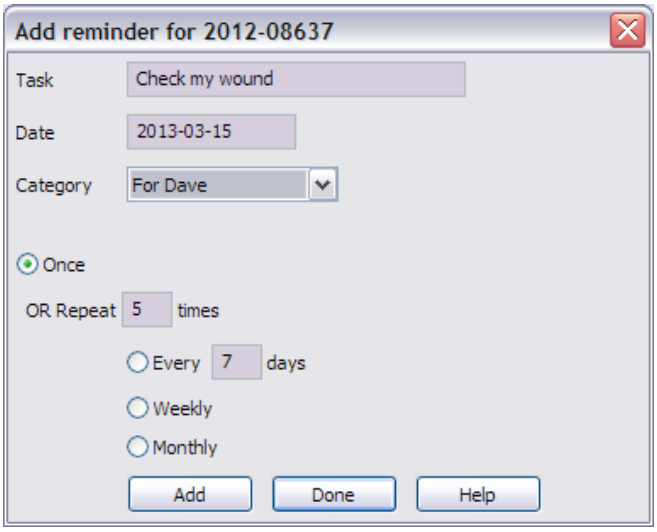
The **Preview** option is helpful in that you can preview the treatments for tomorrow and this helps you to get an idea of how busy the day will be.



Reminders

RaptorMed allows for reminders to be added to the system. A reminder can be set for an individual patient, for an enclosure or general purpose reminders can be added for the facility as a whole. Each reminder will be printed on the daily treatment sheets on the correct date.

Creating a reminder



To add a reminder for a patient, click the **Add reminder** link in the **Action Bar** on the patient's chart.

To add a reminder for an enclosure, right-click on the enclosure in the **Enclosure list** on the main screen and choose **Add reminder**.

To add a general purpose reminder, choose **Edit ▶ Add reminder** from the main menu.

Enter some text describing the task and enter a date. You can choose **Once** if you only want one reminder or you can have the reminder repeat any number of times by filling in the **Repeat** field and choosing an interval in **Days** or **Weekly** or **Monthly**.

Most reminders are set for a specific date, but an auto-repeating reminder can be created if the date field is left blank. For this case, just leave the date field blank and choose **Once**. This reminder will appear every day until it is removed.

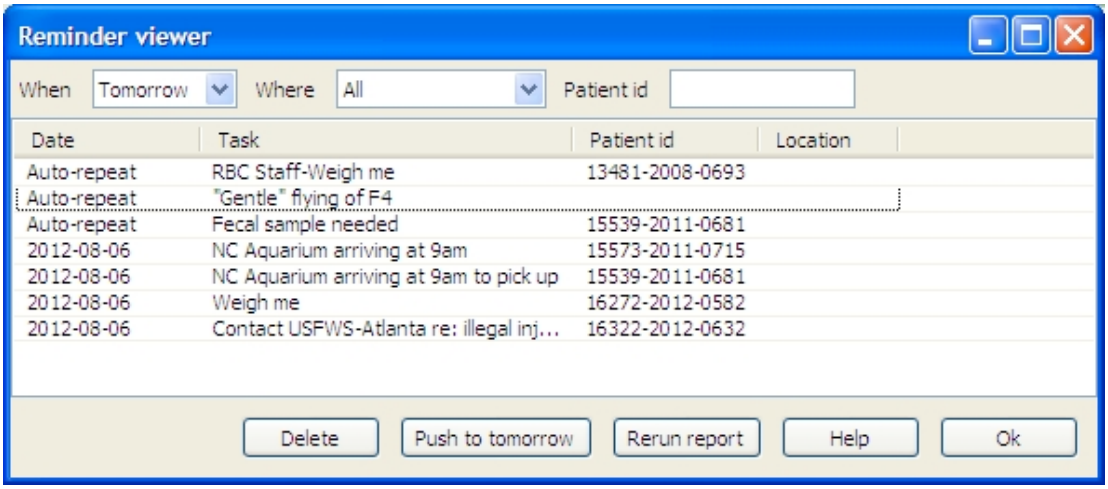
> One good use for Reminders is to schedule special treatments for patients that are in a group.

You can also choose an optional **Category** for the reminder and this allows reminders to be sorted in the Reminder Viewer. The category can be anything and can indicate a type of task (e.g. rehab or maintenance), a person's name or anything else that allows you to group or organize your reminders.

Viewing, editing and removing reminders

To view reminders, choose **Reports ▶ Reminder viewer** from the main menu. A window will appear that shows your reminders. You can filter what to view by choosing **All**, **Today**, **Upcoming** or **Tomorrow** from the **When** list. You can also view reminders for a single enclosure/location by selecting from the **Where** list and you can choose to

view only reminders of a certain **category**. Finally, you can view reminders for a single animal by entering the patient id in **Patient id** field. After entering the id, press the **Rerun report** button to refill the list.



To edit a reminder, just double-click on it. To view the chart for a patient, double-click on the patient's reminder with the SHIFT key held down.

You can select multiple reminders by left-clicking and shift-left clicking. You can then edit, delete or push them all simultaneously by pressing the **Edit, Delete** or **Push** buttons, respectively. If editing multiple reminders, you can only change the date and category.

You can sort the reminders by clicking on any of the column headers and you can print the currently displayed list of reminders by pressing the **Print** button.

You can also push a reminder to tomorrow by selecting it and pressing the **Push to tomorrow** button. This is handy for those days where you could not get everything done.

As a shortcut, you can view all reminders for a single patient by clicking the **View reminders** link from the **Action Bar** in the patient's chart.

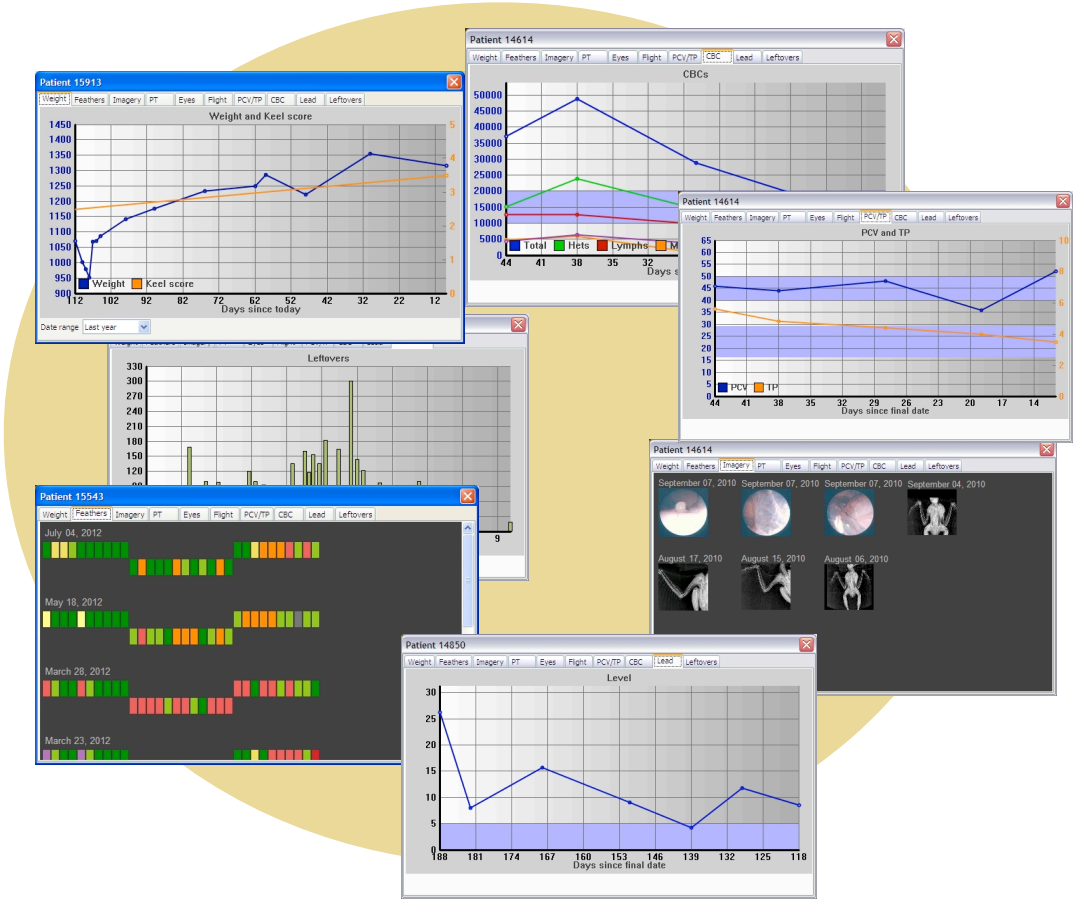
Chapter 4

[The historical data viewer](#)
The reports
- [Physical therapy report](#)
- [Last weights report](#)
- [Weight trends report](#)
- [The Site Map](#)
- [Year-end reports](#)
- Other reports

Historical data viewer

Press the **Historical data** link in the **Action Bar** on the patient's chart to view all sorts of patient data. A window with the following tabs will appear:

- **Weight** - Displays a graph of the patient's weight and body condition score.
- **Feathers** - Displays a view of all the patient's feather checks. The most recent is at the top.
- **Imagery** - Displays thumbnail views of all the patient's imagery including photos and radiographs. You can click on each image to display it in a larger view. Click here for more information on viewing imagery.
- **PT** - Displays a graph of the patient's physical therapy sessions.
- **Eyes** - Displays a view of all the patient's eye exams. The most recent exam is at the top.



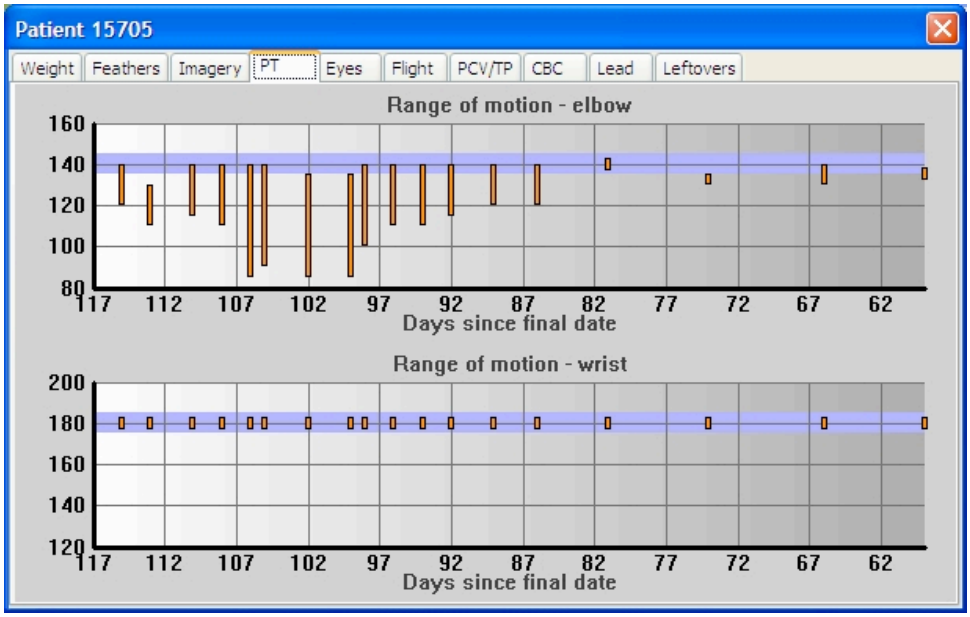
- **Flight** - Displays a view of all the patient's flight evaluations. The most recent evaluation is at the top.
- **PCV/TS/Buffy** - Displays a graph of the patient's PCV/TS/Buffy coat measurements.

- **CBC** - Displays a graph of the patient's CBCs.
- **Lead** - Displays a graph of the patient's blood lead measurements.
- **Dose calcs** - Displays all the patient's dosage calculations. Note that this feature may not be enabled on your system.
- **Leftovers** - Displays a graph of the patient's leftovers. Note that this feature may not be enabled on your system.

If you click on a point on the Weight, PCV/TP, CBC and Lead charts, the actual value and date will be displayed. You can also choose the date range to display on the Weight chart.

The **Physical therapy (PT) chart** displays the range of motion (ROM) for each major joint in the limb undergoing therapy. There are separate charts for each each joint (the elbow and the wrist in the case of a wing). Each PT session is represented by a vertical orange bar. The bottom of the bar indicates ROM angle at the start of session and the top of the bar indicates the angle at the end of the session. The blue band represents the ideal angle for the specific joint. For the typical raptor, the ideal angle is 140 degrees for the elbow and 180 degrees for the wrist. A healthy bird should have very short orange bars that are contained completely within the blue band. The left side of the display is the oldest and the right side is the most recent.

In the example in the screenshot, the elbow had poor ROM that then progressed to near-perfect extension. The wrist was very good from the beginning. As you can see, the display enables you to determine very quickly whether the ROM is good or bad and whether or not you need to continue physical therapy.

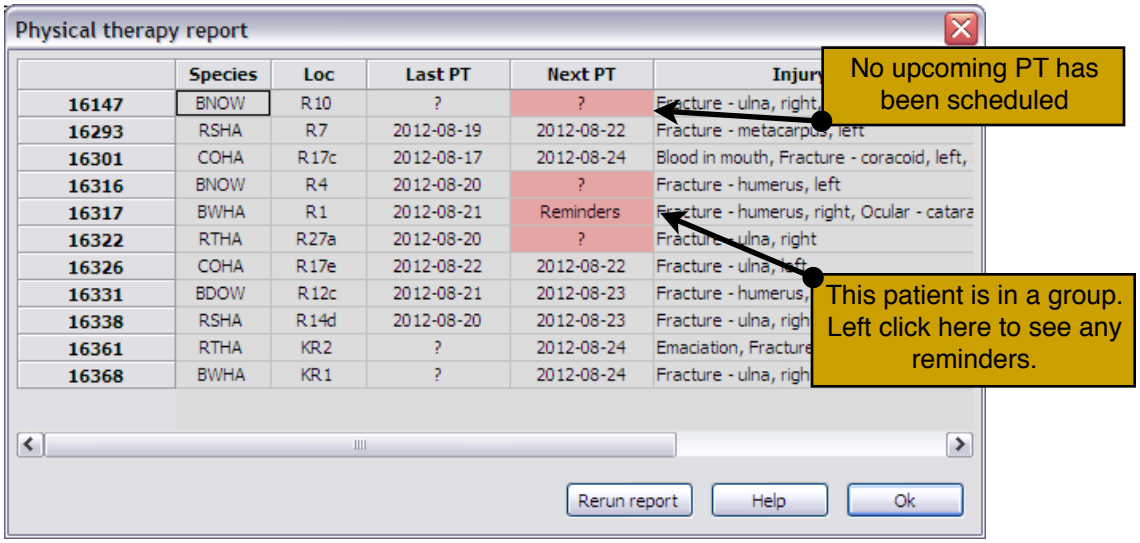


Reports

The Physical Therapy Report

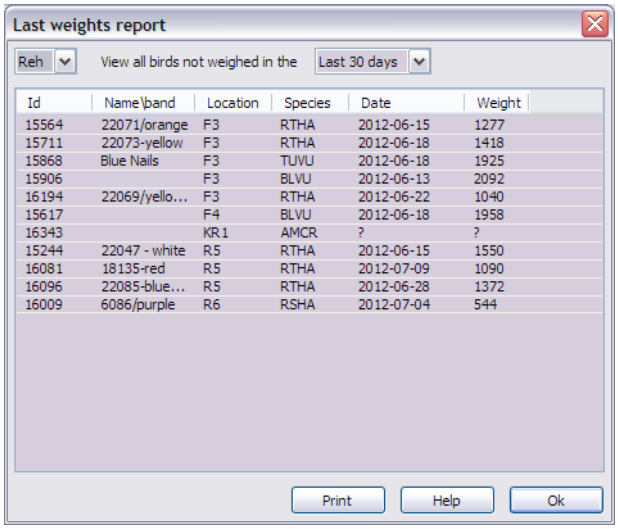
This report allows you to review at-a-glance all patients that are currently undergoing physical therapy (PT). A patient will be included in this report if it's **Undergoing PT** checkbox is checked. Click here for more information. The report shows the patient id, the species, the current location, the last PT date, and the date of the next scheduled PT session.

If a next PT is not scheduled, the box will be highlighted. For an individual patient, physical therapy is scheduled on the patient's individual treatment plan (click here for more information). If the patient is part of a group, then future PT sessions must be scheduled with a **Reminder** since patients in a group do not use there individual treatment plan. In these cases, the **Next PT** column will say **Reminders**. Left click on the **Reminders** text and the list of upcoming reminders will be displayed.


Physical therapy report
Species
Loc
Last PT
Next PT
Injury
16147 BNOW R10 ? ? Fracture - ulna, right,
16293 RSHA R7 2012-08-19 2012-08-22 Fracture - metacarpus, left
16301 COHA R17c 2012-08-17 2012-08-24 Blood in mouth, Fracture - coracoid, left,
16316 BNOW R4 2012-08-20 ? Fracture - humerus, left
16317 BWHA R1 2012-08-21 Reminders Fracture - humerus, right, Ocular - catara
16322 RTHA R27a 2012-08-20 ? Fracture - ulna, right
16326 COHA R17e 2012-08-22 2012-08-22 Fracture - ulna, left
16331 BDOW R12c 2012-08-21 2012-08-23 Fracture - humerus,
16338 RSHA R14d 2012-08-20 2012-08-23 Fracture - ulna, righ
16361 RTHA KR2 ? 2012-08-24 Emaciation, Fracture
16368 BWHA KR1 ? 2012-08-24 Fracture - ulna, righ
Rerun report
Help
Ok
No upcoming PT has been scheduled
This patient is in a group. Left click here to see any reminders.

The Last Weights Report

This report allows you to quickly determine which patients have not been weighed recently. Choose **Reports ▶ Last weights report** from the main menu. You can choose to view either patients currently in rehab or resident animals. You can also choose to view only those patients that have not been weighed in a specific number of days. The report displays the patient id, name/band information, the location, species, and the last weight/date. It is a good idea to check this report periodically to make sure a patient doesn't "slip through the cracks".

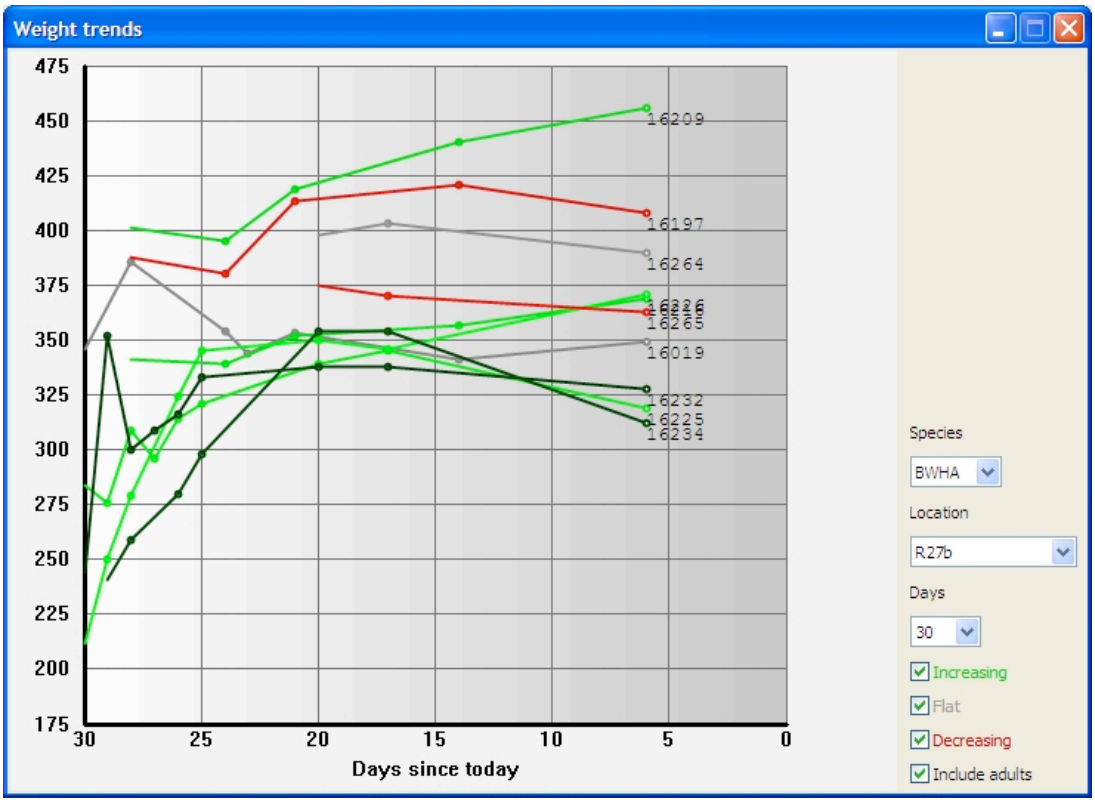


The Weight Trends Report

Right-click on a location in the **Location** list and choose **Show weight trends.** This command displays the weight trends for all patients in the enclosure. The patient's id number is displayed to the right of the trend line. The actual weight can be viewed by clicking on any point. The overall trend is color-coded.

- Green means that the trend is generally increasing.
- Gray means that the trend is mostly flat.
- Red means that the trend is generally decreasing.

Note that recent changes are weighted more heavily than past changes.



You can select the number of days to display, you can filter the chart to only show lines based on their color and you can also choose to display only juveniles or mixed ages. The age filter currently only works for avian species whose current age is listed as L or HY.

The Site Map

Choose **Reports ▶ Site viewer** from the main menu to view the **Site Map**. This shows a graphical view of your facility with each enclosure indicated by a color code.

- **Red** - under construction
- **Yellow** - occupied by at least one patient
- **Green** - empty

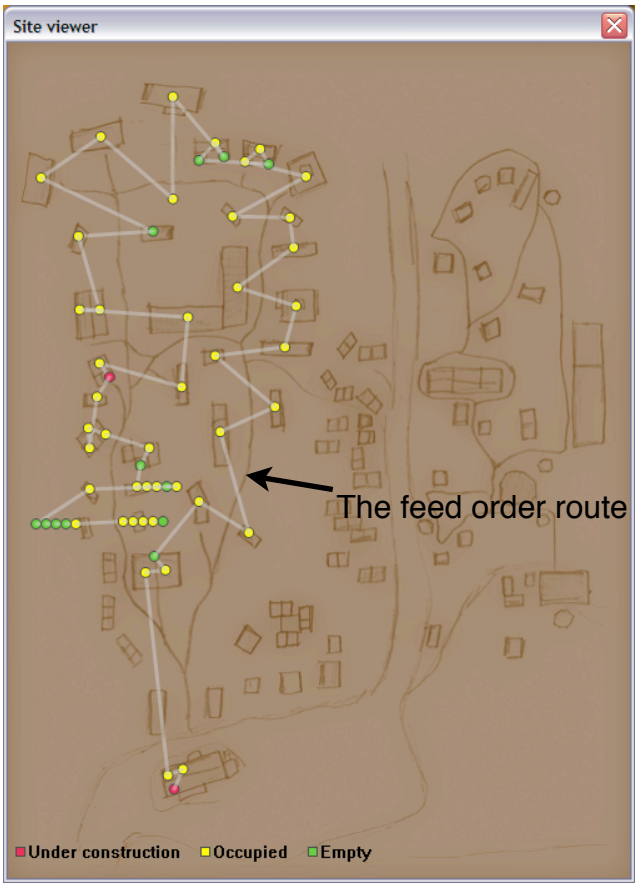
Click on each colored indicator to see a popup summary of the enclosure.

Shift-left click on any spot on the map to save the coordinates for later recall in the **Location Editor** (click here).

Right click and choose **Reload** to have the map redrawn. This is useful if you make a change to a location and want to see the changes reflected in the **Site Map** without having to close it and re-open it.

Right click and choose **Show feed order** to display the route specified by each enclosure's **Feed order** setting. To hide the route, right click and choose **Hide feed order**.

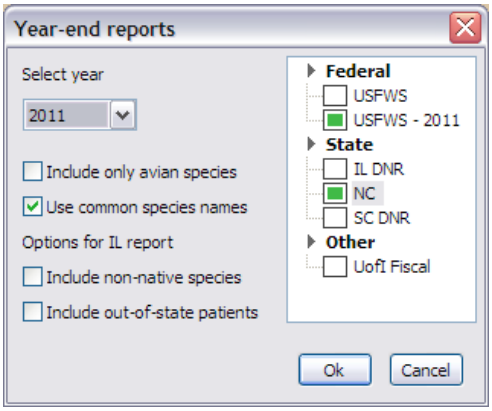
Click here for more information on configuring locations and enclosures.



The Year-End Reports

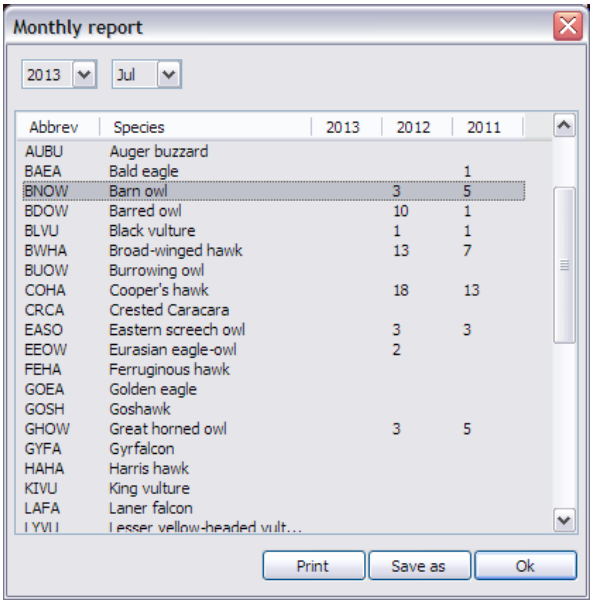
Choose **Reports ▶ Year-end reports** from the main menu to generate your year-end state and federal reports. You can select either this year or last year as well as the report you would like to run. The following options apply to all reports:

- **Include only avian species** - the report will include only avian species. Otherwise all types of animal species will be included in the report.
- **Use common species names** - the reports will use the common name instead of the species abbreviation.



In addition, there are state-specific options that you can select. Once you choose the reports to generate, press the **Ok** button. You will then be prompted for a folder to save the reports to. The reports are created in an html format so you can view them in a web browser by double-clicking on them. You can also send them as an attachment to an email.

Monthly Report

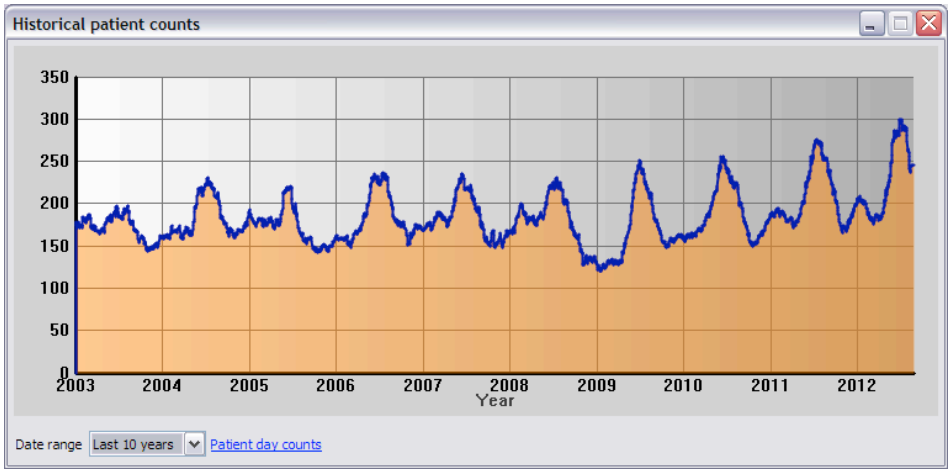


This report displays the number of each species admitted on a monthly basis and it compares/displays the corresponding values from the two previous years. You can select the year and month and you can also choose **All** for the month to see numbers for the entire year.

This report can be printed or saved as an html file.

The Historical Patient Count Report

This report displays a graph of the total patient population (animals in rehab and permanent residents) over time. You can choose the time duration over which to display the data and you can see a tally of the total patient-days per year for the last 5 years by pressing the **Patient day counts** link. This report is very useful when forecasting as it clearly shows monthly and yearly trends regarding your patient population.



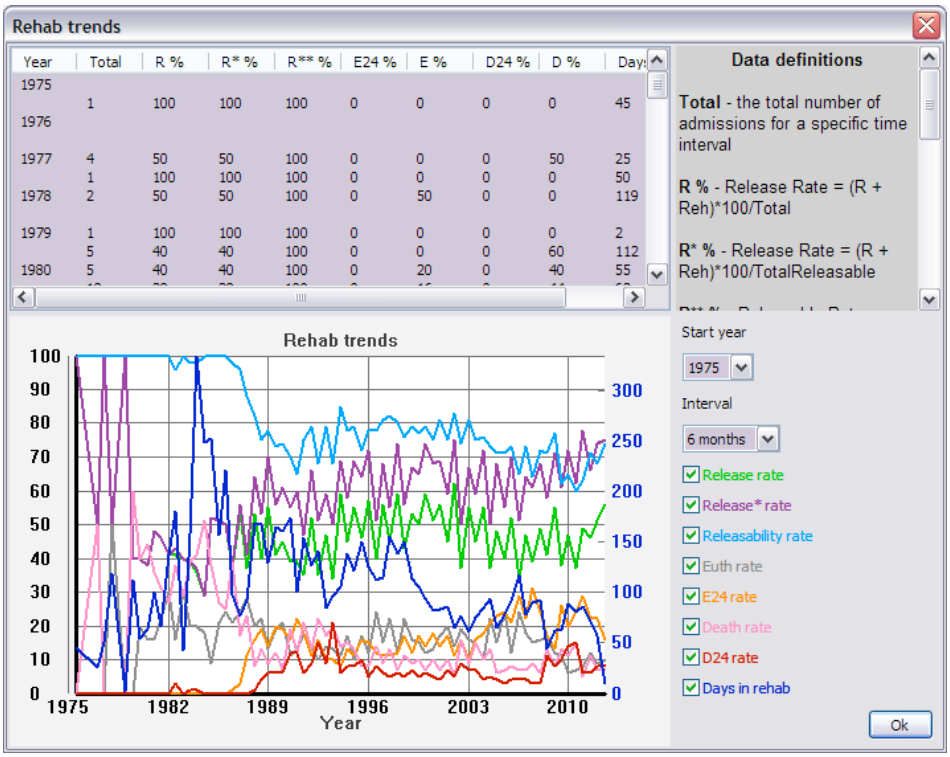
Rehab Trends

This report tabulates and graphs various statistics over time. The following statistics are calculated:

- Release rate (2 different ways)
- Releasability rate
- Euthanasia rate
- E24 rate

- Death rate
- D24 rate
- Days in rehab

The formulas used to calculate the various statistics are displayed in the upper right and the actual data is displayed in a table in the upper left. You can choose the **Start year** as well as which statistics to graph. In addition, you can choose an **Interval** of either 1 month or 6 months. This **Interval** is used to determine how many data points are calculated to create a graph.


Rehab trends
Year
Total
R %
R* %
R** %
E24 %
E %
D24 %
D %
1975 1 100 100 100 0 0 0 0 45
1976
1977 4 50 50 100 0 0 0 50 25
1 100 100 100 0 0 0 0 50
1978 2 50 50 100 0 50 0 0 119
1979 1 100 100 100 0 0 0 0 2
5 40 40 100 0 0 0 60 112
1980 5 40 40 100 0 20 0 40 55
Data definitions
Total - the total number of admissions for a specific time interval
R % - Release Rate = (R + Reh)*100/Total
R* % - Release Rate = (R + Reh)*100/TotalReleasable
Rehab trends
100 90 80 70 60 50 40 30 20 10 0
300 250 200 150 100 50 0
1975 1982 1989 1996 2003 2010
Year
Start year
1975
Interval
6 months
Release rate
Release* rate
Releasability rate
Euth rate
E24 rate
Death rate
D24 rate
Days in rehab
Ok

Enclosure Cleaning and Maintenance
This report displays when each enclosure was last cleaned and disinfected and when the water was last changed. It can be used to schedule the next cleaning and to prioritize which enclosure should be cleaned next.

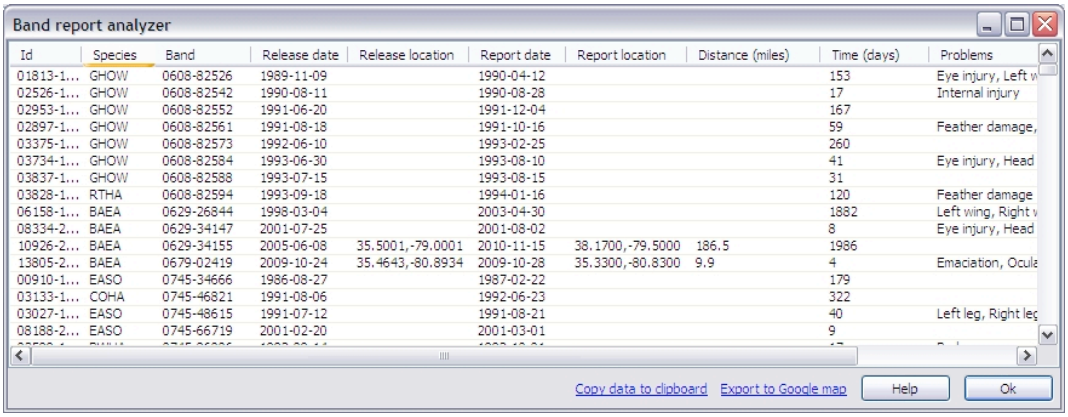
Resident Animal Summary
This report creates a concise summary of all the current residents animals. The report includes the animal's name, id, species, location, sex, age, a list of the current problems and any other annotations that were recorded in the patient's **Notes** field (click here for more information on the **Notes** field).

Active Patients
This report displays a list of all patients that are consider “active”. The report is configurable to use one of two algorithms to determine which patients are active:

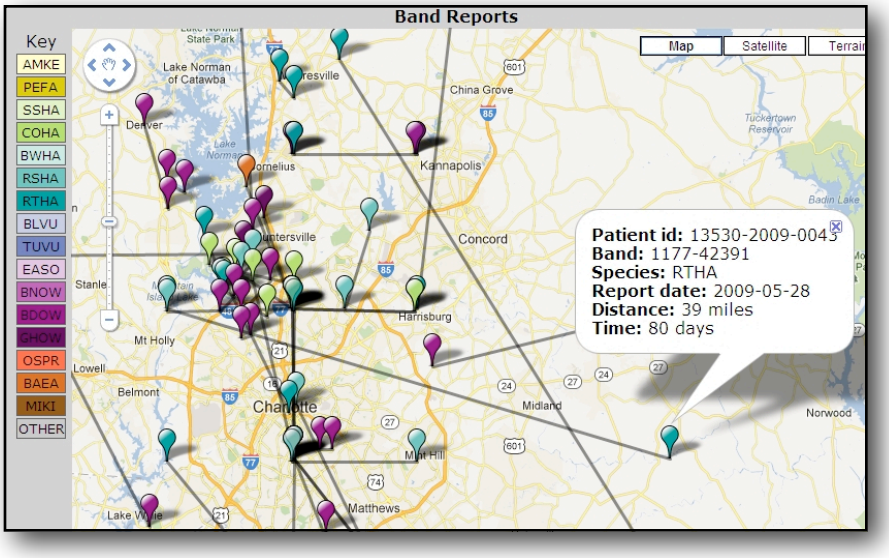
- Those with the Active patient checkbox checked.
- Or those with at least one unresolved problem.

You can double-click on any item to open the patient’s chart.

The Band Report Report
This report will produce a spreadsheet that summarizes each band report. It includes information about the patient as well as the time elapsed and distance traveled between the initial release and the subsequent report. You can sort the spreadsheet by clicking on each column and you can export the data to the clipboard to paste into another program like Excel by clicking the **Copy data to clipboard** link.

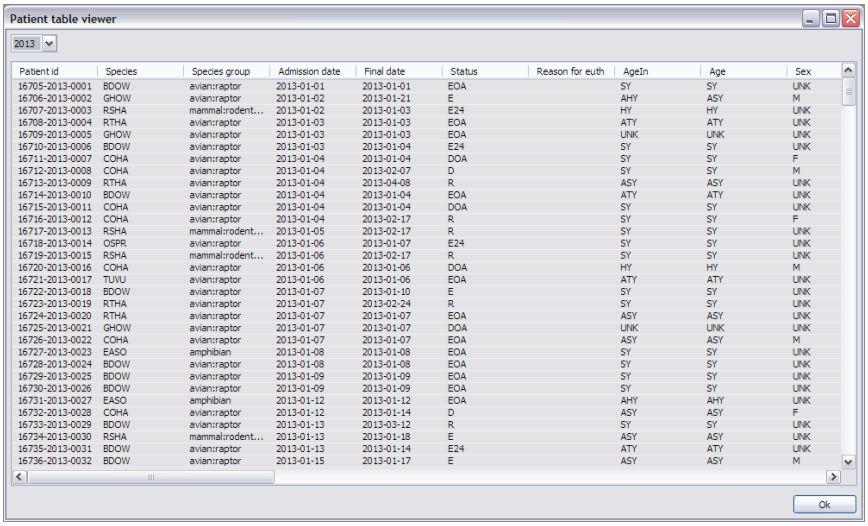


You can also export the reports to a Google Map by pressing the **Export to Google map** link. A new map will open that shows each report connected by a line to the preceding release. You can click on each balloon to get details about each report.



Patient Table Viewer

This report lists all patients in a tabular format. You can select a year and you can sort the entries by clicking on any column heading.



Patients Not Fed or Treated Today

This report lists all patients (in rehab or permanent resident) that have not had an entry made in their chart today. It is a good idea to run this report at the end of each day to catch any patients that may have been accidentally forgotten.

Patients Not Fed or Treated Yesterday
This report lists all patients (in rehab or permanent resident) that did not have an entry made in their chart yesterday.

View Last Record Entries
This report lists the last entry made **today** for each patient. You can select either **Rehab** or **Permanent resident** and either **Diurnal** or **Nocturnal**. This report is useful as an end-of-day check to make sure each patient has received the proper treatment or food.

Patients That Need Live Prey Test
This report lists all patients in rehab that have their **Needs live prey test** checkbox checked. Click here for more information.

Ophtho Consult Waiting List
This report lists all patients (in rehab or permanent resident) that have their **Needs ophtho consult** checkbox checked. Click here for more information.

Falconer Evaluation Waiting List
This report lists all patients in rehab that have their **Needs falconer eval** checkbox checked. Click here for more information.

Patients That Need Placement
This report lists all patients in rehab that have their **NR** checkbox checked and their **Has placement** checkbox **not** checked. Click here for more information.

Missing Release Locations
This report lists all patients that have been released but for which an actual latitude and longitude have not been recorded in their **Release** record. Click here for more information. This report is helpful for birds that have been released with a federal band because the release location must be recorded and submitted with your banding reports.

Imp Report
This report lists all patients (in rehab or permanent resident) that have their **Needs imp** checkbox checked. Click here for more information.

Cope Report
This report lists all patients (in rehab or permanent resident) that have their **Needs cope** checkbox checked. Click here for more information.

Cold-Intolerant Patients
This report lists all patients (in rehab or permanent resident) that have their **Cold intolerant** checkbox checked. Click here for more information.

Orphans Ready for Transfer
This report lists all patients in rehab that have their **Neonate/orphan** checkbox checked and their **Release approved** checkbox checked and they have an expected release date set. Click here for more information on the checkboxes and here for information on setting the **Expected Release Date**. Basically, this lists all orphans that are ready to transfer to another facility to finish the rehab process.

Waiting for Consult
This report lists all patients (in rehab or permanent resident) that have a specialist consult scheduled in their individual treatment plan. Click here for more information.

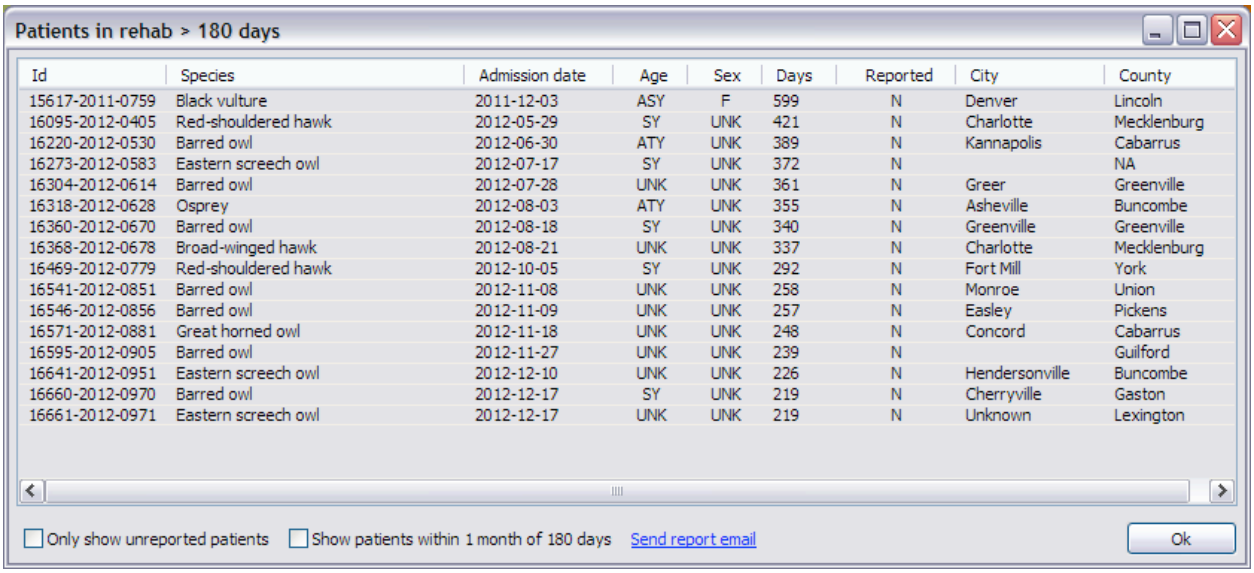
Patients in Hospital
This report lists all patients (in rehab or permanent resident) that were in the clinic on a specific date. You will be prompted for a specific date before the report runs.

Patients > 90 Days
This report lists all patients that have been in rehab over 90 days.

Patients > 180 Days
This report lists all patients that have been in rehab over 180 days. You can sort the report by clicking on each column. You can have the report show all patients that are within one month of 180 days by selecting the **Show patients within 1 month...** checkbox. This allows you to request an rehab extension ahead of time.

To automatically create an email listing details of all patients currently displayed, press the **Send report email** link. This will create an email that you can edit if needed and send to the appropriate authorities. Each patient reported in the email will automatically be marked as "**reported**". That is, the **180 days reported** checkbox will be checked. See patient checkboxes for more information.

In addition, you can choose to see only those patients that have not been reported yet by checking the **Only show unreported patients** checkbox.



Id	Species	Admission date	Age	Sex	Days	Reported	City	County
15617-2011-0759	Black vulture	2011-12-03	ASY	F	599	N	Denver	Lincoln
16095-2012-0405	Red-shouldered hawk	2012-05-29	SY	UNK	421	N	Charlotte	Mecklenburg
16220-2012-0530	Barred owl	2012-06-30	ATY	UNK	389	N	Kannapolis	Cabarrus
16273-2012-0583	Eastern screech owl	2012-07-17	SY	UNK	372	N		NA
16304-2012-0614	Barred owl	2012-07-28	UNK	UNK	361	N	Greer	Greenville
16318-2012-0628	Osprey	2012-08-03	ATY	UNK	355	N	Asheville	Buncombe
16360-2012-0670	Barred owl	2012-08-18	SY	UNK	340	N	Greenville	Greenville
16368-2012-0678	Broad-winged hawk	2012-08-21	UNK	UNK	337	N	Charlotte	Mecklenburg
16469-2012-0779	Red-shouldered hawk	2012-10-05	SY	UNK	292	N	Fort Mill	York
16541-2012-0851	Barred owl	2012-11-08	UNK	UNK	258	N	Monroe	Union
16546-2012-0856	Barred owl	2012-11-09	UNK	UNK	257	N	Easley	Pickens
16571-2012-0881	Great horned owl	2012-11-18	UNK	UNK	248	N	Concord	Cabarrus
16595-2012-0905	Barred owl	2012-11-27	UNK	UNK	239	N		Guilford
16641-2012-0951	Eastern screech owl	2012-12-10	UNK	UNK	226	N	Hendersonville	Buncombe
16660-2012-0970	Barred owl	2012-12-17	SY	UNK	219	N	Cherryville	Gaston
16661-2012-0971	Eastern screech owl	2012-12-17	UNK	UNK	219	N	Unknown	Lexington

Sample Viewer

This report lists samples that have been collected. Click **here** for more information on samples. You can display only those samples whose results are still **Pending** or all samples by making a choice from the **Which** list. You can also enter a specific **Patient id** to view samples for just that patient. Double-click on any entry to open the patient's complete chart. Note: sample test results are considered **Pending** if the test results field is blank.

Chapter 5

[Group operations](#)
[Advanced search tool](#)
[Query tool](#)
[Address book](#)
[Event planner](#)
[Cost estimator](#)
[Document repository](#)
[Handler training log](#)
[Transporter text messages](#)

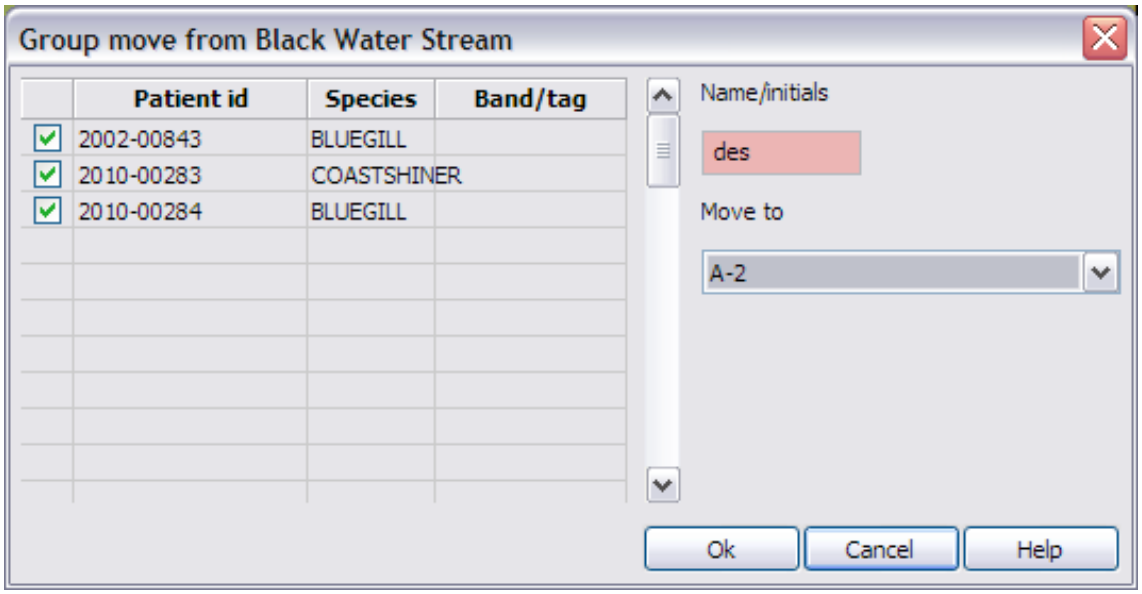
Group operations

The group operations allow you to perform various functions on a whole group of patients at the same time. They are accessed by choosing **Tools ▶ Group operations** from the main menu or by right-clicking on a specific location in the **Enclosure list** on the main screen. A form will appear that allows you to enter the **id numbers** of the patients you want to work with. If you access the group operation functions by right-clicking on an enclosure, then the list of patients will be automatically filled with all the patients in that enclosure. If you access the group operations from the main menu, then you can enter specific id's for the animals you want to work with. In either case, check the boxes in the first column of the animals that you want to modify.

Groups of animals can be moved, released, transferred or added. In addition, you can change the various properties of multiple animals in a group.

Move

After editing/modifying the patient list and entering your initials, choose the new location to move the patients to and press the **Ok** button.



Release

After editing/modifying the patient list and entering your initials, press the **Ok** button. The **Release** form will be displayed. Fill it out accordingly and press the **Ok** button. Note that this form is simplified and does not include the band/tag fields since you cannot specify a band or tag for multiple animals at once.

Transfer
After editing/modifying the patient list and entering your initials, press the **Ok** button. The standard **Transfer** form will be displayed. Fill it out accordingly and press the **Ok** button.

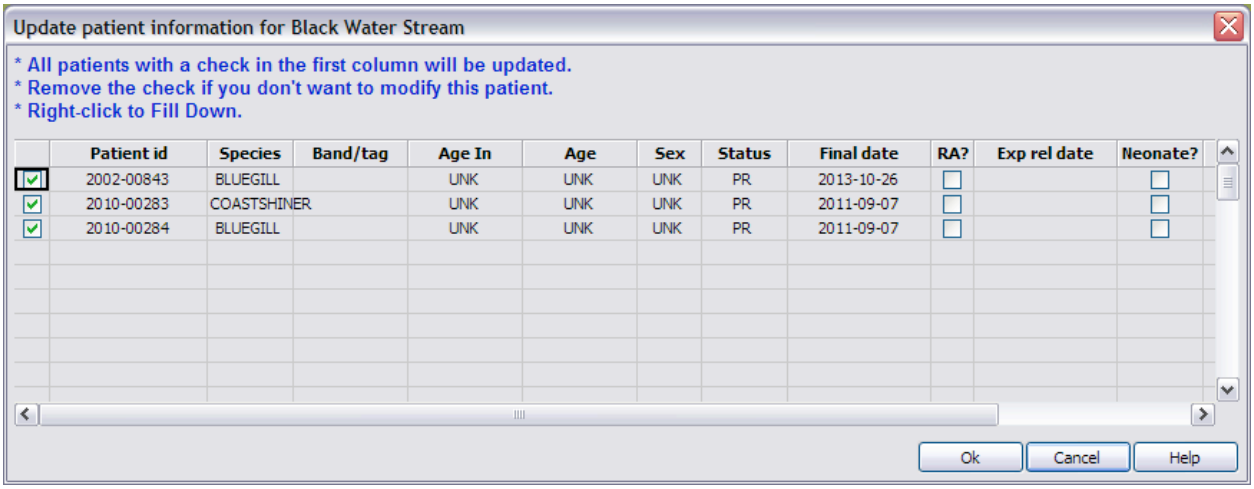
Set patient info
This function allows you to simultaneously set/modify several different properties for multiple animals in a specific location. The following properties can be set:

- Band/tag
- AgeIn - choose from the list that will appear when you click in cell
- Age - choose from the list that will appear when you click in cell
- Sex - choose from the list that will appear when you click in cell
- Status - choose from the list that will appear when you click in cell
- Final date - enter in ccyy-mm-dd format. Note that this field must be filled in with a valid date if you choose a **Status** that requires a **Final date**.
- Release approved - check the box for yes
- Expected release date - enter in ccyy-mm-dd format
- Neonate - check the box for yes
- Keywords - anything entered here will be **appended** to the patient's current list of keywords.

Note: in order to modify a patient, you must place check the box in the first column. To leave a patient unchanged, clear the check box. Also note that the **Patient id** and **Species** columns are for informational purposes only. They cannot be modified here.

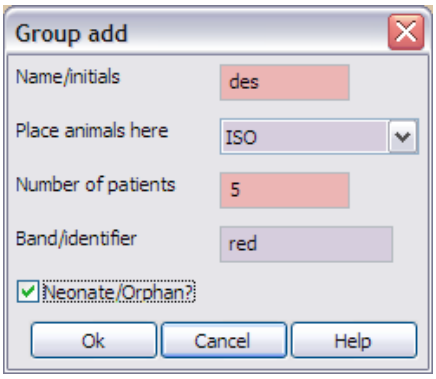
You can **right-click** on a cell and choose **Fill down** to copy the cell's value to all cells below it.

After editing/modifying the patient list, press the **Ok** button.



Add

The **Group Add** function is slightly different than the other group operations since a list of patients is not presented. In this case, you must specify how many patients you want to add, where they are going to be located and whether they are neonates/orphans. You can also specify a band/tag number if each animal is to be identified the same way. Once you do this, the normal **Add patient** form is presented. After filling out that form, the specified number of new patients will be created with sequential **id numbers** and they will automatically be placed in the specified location.



Note that you still have to setup a treatment plan for these new patients.

Automated paperwork

RaptorMed can automate much of the routine paperwork that is required by the US FWS. To access these functions, right click on the patient in the **Patient List** on the main window and choose **Paperwork**. The following functions are automated:

- Send **Special Species Admitted** email - The USFWS must be notified when any of the species of interest (such as eagles) are admitted into a rehabilitation facility. This function automates the process. A form will be displayed with an email message pre-written to contain the specific information about the patient of interest. The email is pre-addressed to your US FWS representative and is based on a template that you can edit to suit your needs. You can edit the message if needed and press the **Send** button to send the message.

- Send **Illegal Cause of Injury** email - The USFWS must be notified when a patient is admitted as a result of illegal activity such as gunshot. This function automates the process. A form will be displayed with an email message pre-written to contain the specific information about the patient of interest. The email is pre-addressed to your US FWS representative and is based on a template that you can edit to suit your needs. You can edit the message if needed and press the **Send** button to send the message.

- Send **Status** email - This function allows you to quickly send a patient status update email. A form will be displayed with an email message pre-written to contain the specific information about the patient of interest. The email is pre-addressed to the address specified in the patient's finder information. If no address was specified, then you can manually enter an address. You can edit the message if needed and press the **Send** button to send the message.

- Create **Transfer Request** - An official USFWS **Transfer Request worksheet** must usually be submitted before a non-releasable animal can be transferred. This function creates a worksheet for you based on a pre-installed template. You will be prompted for a folder where the new worksheet will be saved. Once it is saved, you can double-click on it to open and edit it before submitting it to your USFWS agent.

- Write **Non-Releasability Letter** - A letter of non-releasability from a veterinarian is often required before a non-releasable animal can be transferred. This letter is typically addressed to the recipient from the veterinarian representing the organization transferring the animal. This function creates a new letter for you based on a pre-installed template with the patient's information plugged into it. You will be prompted to choose an recipient from the **Address Book**. You can choose an existing entry from the **Address Book**. If the recipient is not in the **Address Book**, then press the **Cancel** button and the recipient area in the letter will be left blank for you to manually edit. You will then be prompted for a folder where the new letter will be saved. Once it is saved, you can double-click on it to open and edit it before sending it to the recipient.

- **Report Band** - This function simply opens a web browser to the USGS Bird Banding Lab Band Report web page.

- **Print admission receipt** - This function will print a receipt for the person delivering the animal. It has details about the animal as well as any donation that may have been given.

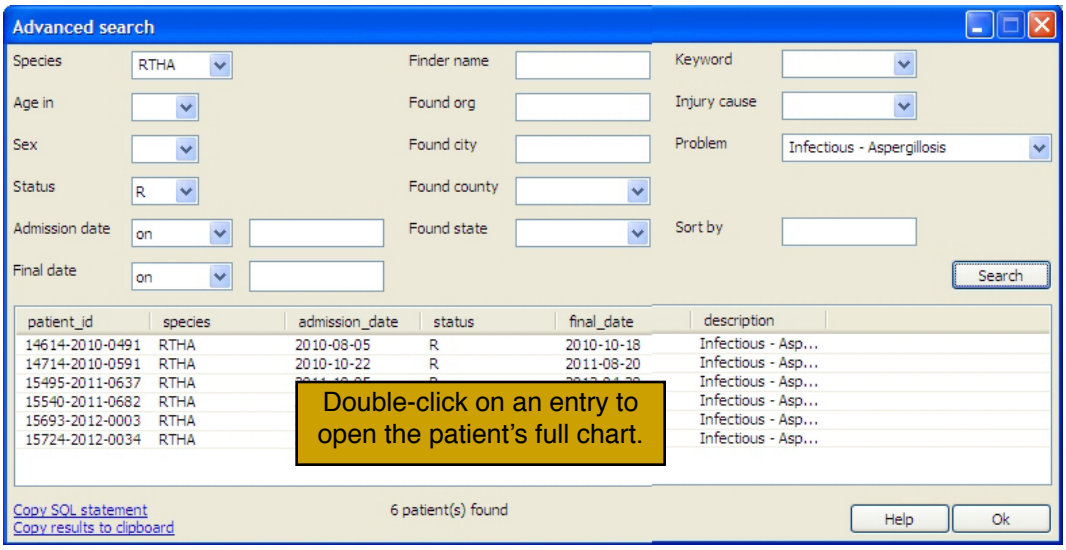
- **Link to previous patient** - This function is used to record a band report (when a new patient is admitted that was previously released with a band or tag). After the new patient is entered and it's found location has been recorded (ideally including the exact latitude and longitude), choose this command. The database will be searched for a previous patient with the same band or tag. If one is found, the following will occur:
  - A band report record will be created based on the found location of the new patient it will be attached to the previous patient.
  - The previous patient will be marked as a BAND_RETURN.
  - A notation will be added to the new patient indicating the id number of the previous patient.

These functions should have been configured and tested when the system was installed. Please contact customer support if you encounter any problems.

Searches and queries

The Advanced Search Tool

This tool allows you to search for and find past patients based on a whole range of parameters. You can specify many different parameters to narrow your search. Once you have specified your search criteria, press the **Search** button. The results will be displayed in the spreadsheet and the number of patients found will also be displayed.

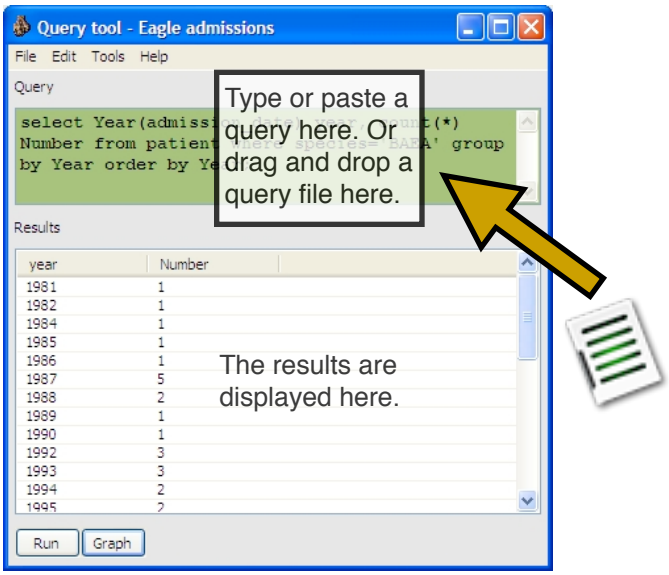


The following fields do **NOT** have to be an exact match: **Finder name**, **Organization**, **Keyword,** and **Problem.** The results will be sorted by **Patient id** unless you specify a different column name in the **Sort by** field. You can copy the results to the clipboard to use in another program by clicking the **Copy results to clipboard** link.

The Query Tool

The query tool is a very powerful utility that allows you to pose very complex queries to the database. It allows you to mine your data in ways never before possible and it can create beautiful graphs with just a few mouse clicks. This tool is accessed by choosing **Tools ▶ Query tool** from the main menu. Here are some example queries:

- Show me all red-tailed hawks that were admitted in 2010 from Gaston county, NC with an ulna fracture.
- What are the admission trends in bald eagles since 1980?
- What was the outcome of all patients treated with experimental drug X?
- How has our surgical time for humerus fracture repairs improved over time?



Queries of this type require in-depth knowledge of the internal database structure. Because of this, you will likely need assistance from customer support. So, send us a question you would like answered and we will create a custom query. This is simple file that you can drag and drop onto this form.

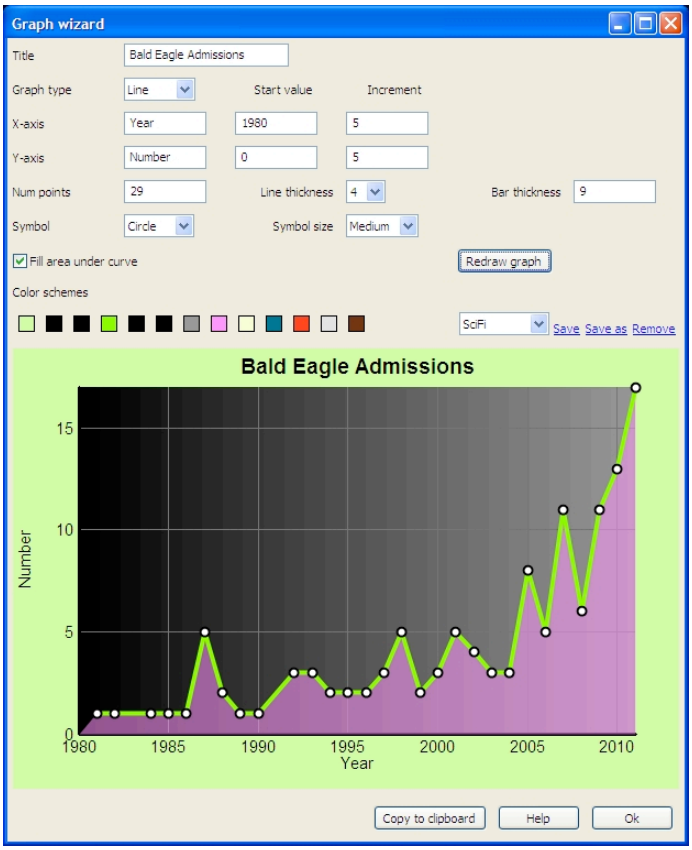
You can also type or paste the query text into the edit field at the top of the form. After you press the **Run** button, your results will display in the **Results** spreadsheet at the bottom. You results can be copied to the clipboard and then pasted in Excel or any other Windows application. To copy the results to the clipboard, **Edit ▶ Copy results to clipboard** from the menu.

Queries can also be saved for later recall. Under the **File** menu, there are choices to **Open**, **Save**, and **Save as**. You can also **Delete** or **Rename** the currently loaded query by using the corresponding commands under the **Edit** menu.

Your data can be graphed using the **Graph Wizard**. Once you have run your query and have your results listed in the **Results** spreadsheet, press the **Graph** button and the **Graph Wizard** will appear. The wizard allows you to specify or select the following attributes for your graph:

- The title

- The graph type (line, bar, scatter, pie)
- The labels for each axis
- The starting value and increment value for each axis. The increment value determines how far apart the horizontal and vertical lines are spread.
- The number of points to include in your graph. If you dataset has 50 points, you can choose to graph just the first 25, for example.
- The line and bar thickness for line and bar graphs, respectively.
- The symbol (square, x, circle, cross or no symbol) and symbol size for line and scatter graphs.
- You can also specify whether to fill the area under the curve for line graphs.
- Finally, you can select all sorts of colors by double-clicking on each square in the color palette. If you hover your mouse over each square, a tool tip will appear that tells you what the color is for.



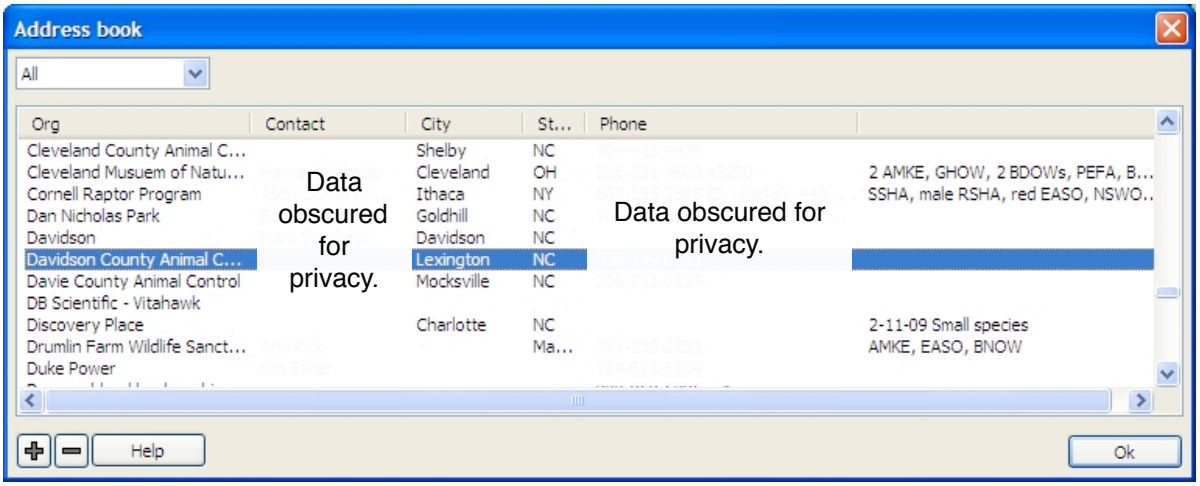
After making your selections and changes to colors, etc, press the **Redraw graph** button to see what your chart looks like. Once you are happy with its appearance, press the **Copy to clipboard** button to save the chart to the Windows clipboard. You can then paste it into another document like Word or Powerpoint.

> Note: in order to use the **Graph Wizard**, the query must be formulated such that the values for the X axis are in the first column and the values for the Y axis are in the second column. Please contact technical support for help.

If you have color scheme that you like you can save and recall it for later use. You can select a color scheme by choosing it in the color scheme list. If you make changes, you can save them by pressing the **Save** link or save them into a new color scheme by pressing the **Save as** link. You can remove the currently selected color scheme by pressing the **Remove** link.

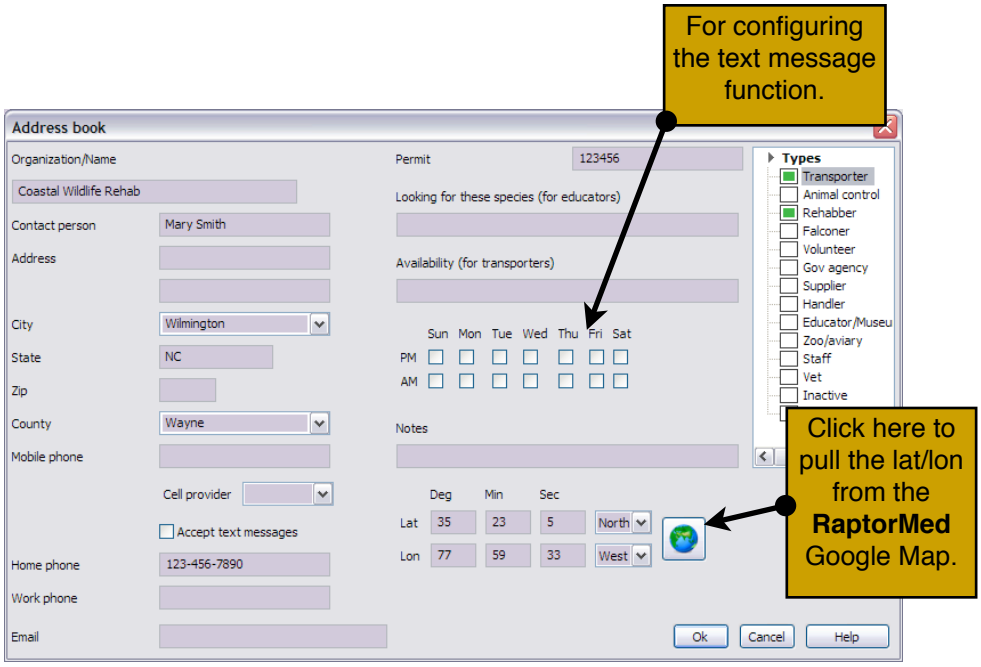
The Address Book

The address book allows you to store contact information for all sorts of things like people, places, suppliers, etc. To access the **Address Book**, choose **Edit ▶ Address Book** from the main menu.



The **Address Book** viewer lists each contact. You can sort by any of the columns and you can filter the list to show only certain types of contacts by choosing from the **Type** list at the top. You can add a new contact by pressing the **+** button or remove the selected one by pressing the **-** button. You can edit the selected contact by double-clicking on it.

Each entry has fields for:



- **Contact information** including multiple phone numbers. Note that the **Cell provider** is only needed if you intend to use the Text Messaging function.
- **Permit numbers**
- A field that allows you to record if a certain contact is looking for specific non-releasable animals. If you enter something here, this contact will be listed when you choose **Looking for animals** from the filter in the Address Book list window shown above.
- **Latitude and longitude** - these must be filled in if you would like to plot this entry on a Google Map (see below).
- The **Availability** field allows you to record when, for example, a Transporter-type person is available to go out and rescue an animal. For example, you might enter something like “M-F PM + weekends” or “Any day except Tuesday”.
- The **Notes** fields is for any random additional information that you would like to record for this contact.
- The check boxes for **AM/PM** and **Sun-Sat** are used determine when it is all right to send a Transporter-type person a text message. Click **here** for more information.

- Finally, there is a set of check boxes that define the contact **Type**.

Types of entries

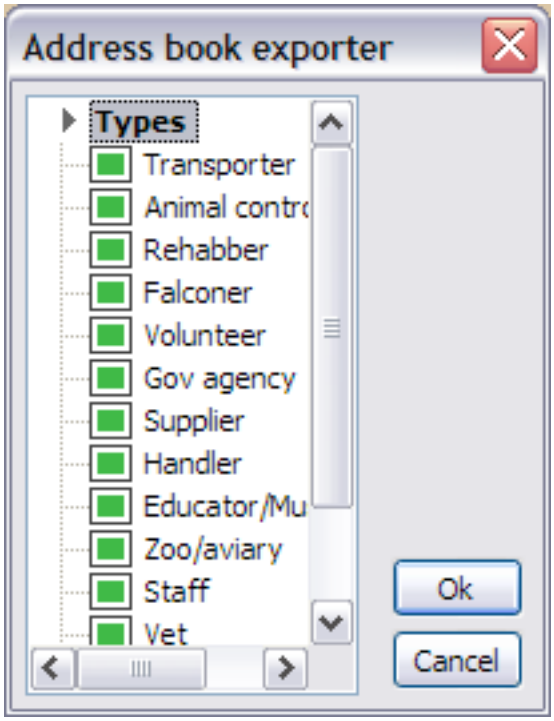
The following contact types are possible. Note that more than one type can be selected, so a person could be a rehabber and a transporter at the same time.

- **Transporter** - For people that can assist with rescuing and transporting injured animals.
- **Animal control** - Animal control agencies. Usually government/county-run, but not always.
- **Rehabber** - Other rehabilitation facilities or people that you work with.

- **Falconer** - Falconers. Sometimes useful for rehab or for rescuing birds trapped in warehouses.
- **Volunteer** - Volunteers of your organization.
- **Government agency** - USFWS, state DNR, etc.
- **Supplier** - Suppliers for medications, food, etc.
- **Handler/trainer** - People in your organization that handle/train resident animals. Only contacts with the check box checked will be included in the **Handler training log**.
- **Educator/museum** - Educational facilities that you work with. Useful when you need to place non-releasable animals.
- **Zoo/aviary**
- **Staff** - Staff members at your organization.
- **Veterinarian** - Veterinarians that you work with.
- **Site/nature preserve** - Actual locations that you use, potentially for release sites. The **Release form** allows you to choose one of these entries so that the location information does not have to be re-entered.
- **Inactive** - Used to mark this contact as inactive. This allows you to keep the contact information in the **Address Book** without having to delete it completely.

Exporting to a Google Map

The entries in your **Address Book** can be exported to a Google Map by choosing **Report ▶ Export address book to Google map** from the main menu. A window will appear that allows you to choose the types of **Address Book** entries you want to export. Remember that only entries with a valid latitude and longitude can be exported.

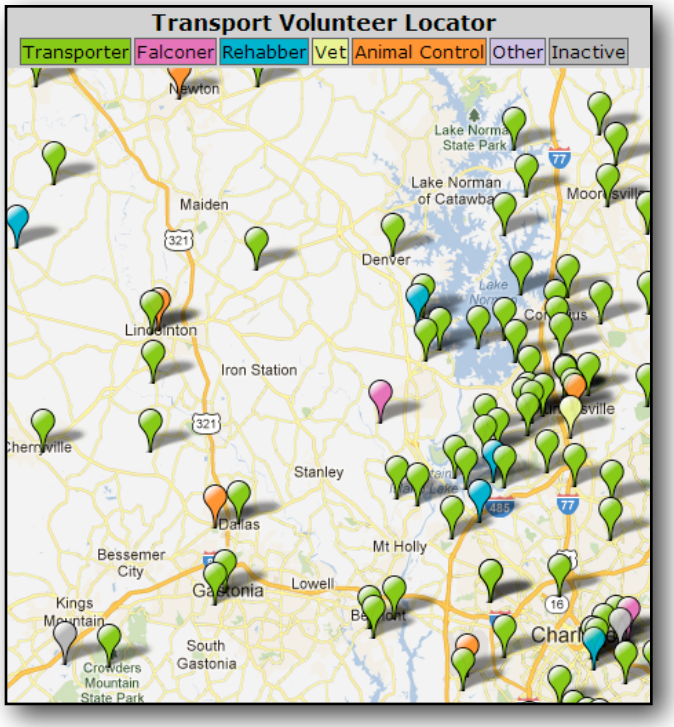


Once you make your selections and press the **Ok** button, you will be prompted for a folder to save the Google Map to. An html file will be created. You can then double-click on it to view it in your browser. Each entry will have a color-keyed balloon and you can click on each balloon to get information about the entry.

It is very helpful to export **Transporters**, **Rehabbers** and **Animal control agencies** to the map. If you do this, this map will be very helpful when trying arrange for the capture and care of an injured animal.

This map is also very useful as it will store the latitude and longitude in the Windows clipboard when you click on a point. This location can then be automatically imported by RaptorMed and is helpful when:

- Recording a **Release**
- Sending a text message to transport volunteers
- Recording **Band Reports**
- Creating new **Address Book** entries

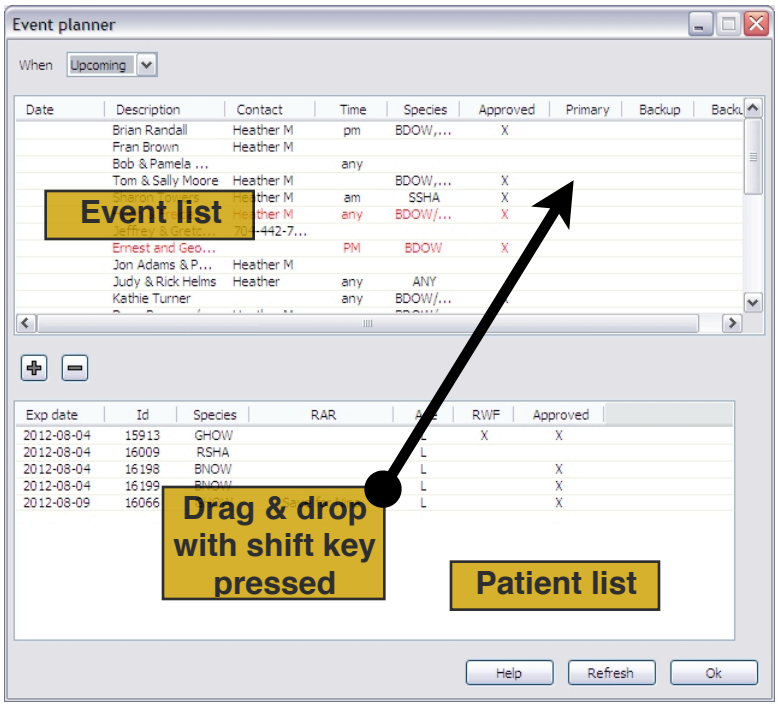


The Event Planner

The **Event Planner** is accessed from the main menu under **Tools ▶ Event planner**. This tool is great for fundraising as it helps coordinate events where you are planning to release an animal. Basically, this tool allows you to create and schedule events and match those events with animals that have upcoming expected release dates. The **Event Planner** lists all events at the top and all animals with an **Expected release date** that has been set are listed at the bottom. Remember, the **Expected release date** is only a best guess as last minute changes or delays are not uncommon. Click here for information on setting this date.

To use the tool, there are three steps that need to be followed:

1. Create an event.
2. Mark animals with an upcoming release dates. This is done in the Patient Info form.
3. Match an animal to an event.



You can view **All** events or all **Upcoming** events by selecting from the **When** list. The highlighted events are those that were marked with highest priority.

The **Patient** list displays the patient's expected release date, id, species and age. The **RWF** column refers to **Release Where Found** and indicates that this patient was requested to be released at the site where found so it may not be available to use in a special event (click here for more information). The **Approved** column indicates whether this patient has been approved for release yet.

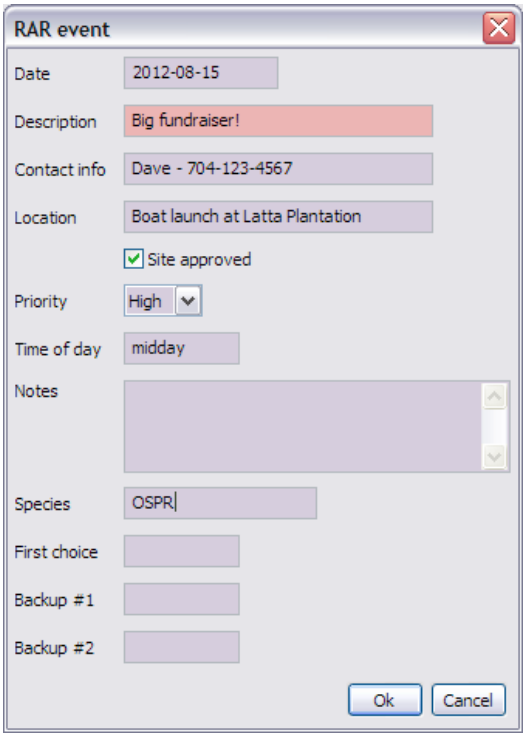
When an animal is associated with an event, the event's description will be displayed in the patient's **Release event** field.

To create a new event, press the **+** button. To delete the selected event, press the **-** button. Double-click an event to edit it.

To add or edit an event, a form appears that allows you to enter a **Description** for the event, who is the main contact person and where the event is to take place. The **Date** is optional as some events may be flexible and may be dependent on the availability of a certain species to release. The **Site approved** check box is used to indicate that the specified location has been reviewed and approved. The **Priority** can be set and **High** priority events will be highlighted in the **Event** list. There is an additional **Notes** field and the desired **Species** can also be specified.

Note: **RAR** refers to Release-A-Raptor which is catchy name for the release program developed at the Carolina Raptor Center. Its meaning has been expanded to include the release of any type of patient.

The **First choice** and **Backup** fields indicate which animals are matched with this event. You can simply enter the **patient id** of the desired animals in the appropriate fields or, with the **Shift** key pressed, drag and drop a choice from the **Patient** list to the **Event** list. Be sure to drop the choice in either the **Primary** or one of the two **Backup** columns for the desired event in the **Event** list.

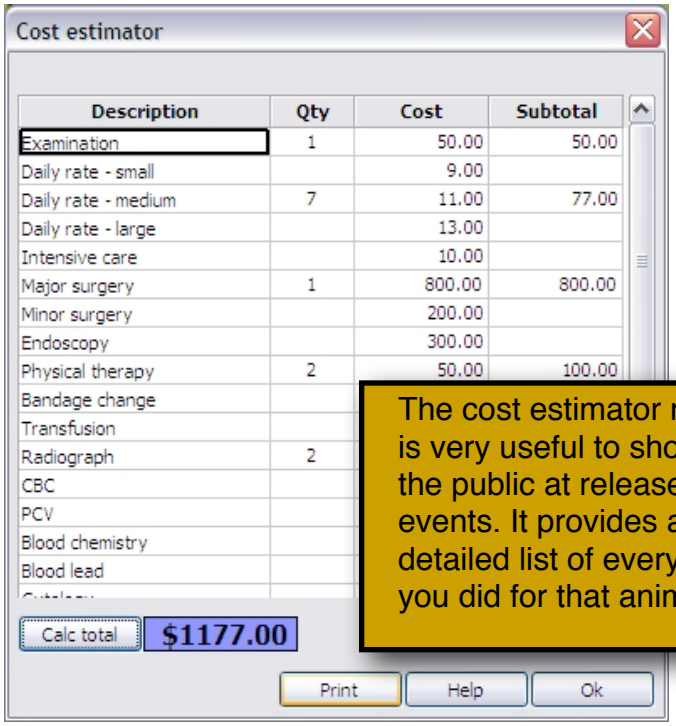


Cost Estimator

The **Cost Estimator** function is a tool that provides an estimate of the cost associated with the treatment for a specific patient. It is accessed by pressing the **Cost estimator** link in the **Action Bar** on the patient's chart.

The estimator automatically tallies the number of days in rehab, as well as radiographs, bloodwork and many other tests and procedures.

Although usually unnecessary, you can edit each line item if necessary to change a description, quantity or cost. There are also blank lines at the end that can be used to add completely new items. Once the spreadsheet accurately reflects the desired costs, press the **Calc total** button to have the total calculated. Note that any edits you make here will **NOT** be saved.

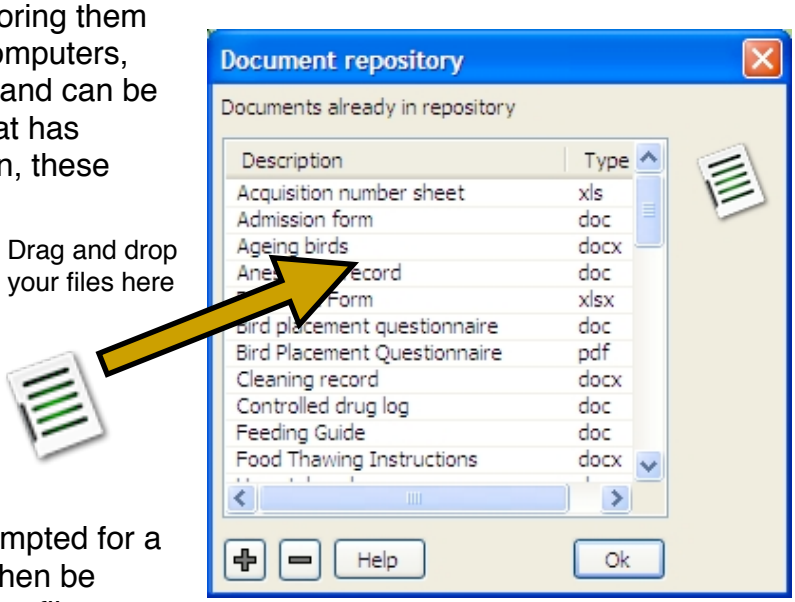


The cost estimator report is very useful to show to the public at release events. It provides a detailed list of everything you did for that animal.

Press the **Print** button to create a report that summarizes the patient's basic information, problems, and all treatments and costs.

The Document Repository

This function is accessed by selecting **Tools ▶ Document repository** from the main menu. The repository provides an easy-to-access location for various documents and files of any type. Rather than storing them in random folders on different computers, they are all stored in one place, and can be accessed from any computer that has **RaptorMed** installed. In addition, these files will be automatically copied for safe-keeping when the rest of the database is backed up.



To add a file to the repository, simply drag and drop it onto the form. Or you can press the **+** button and browse to the file when prompted. You will be prompted for a description of the file and it will then be added to the list. To view or edit a file already in the repository, just double-click on it. To delete a file, select it and press the **-** button.

Handler training log

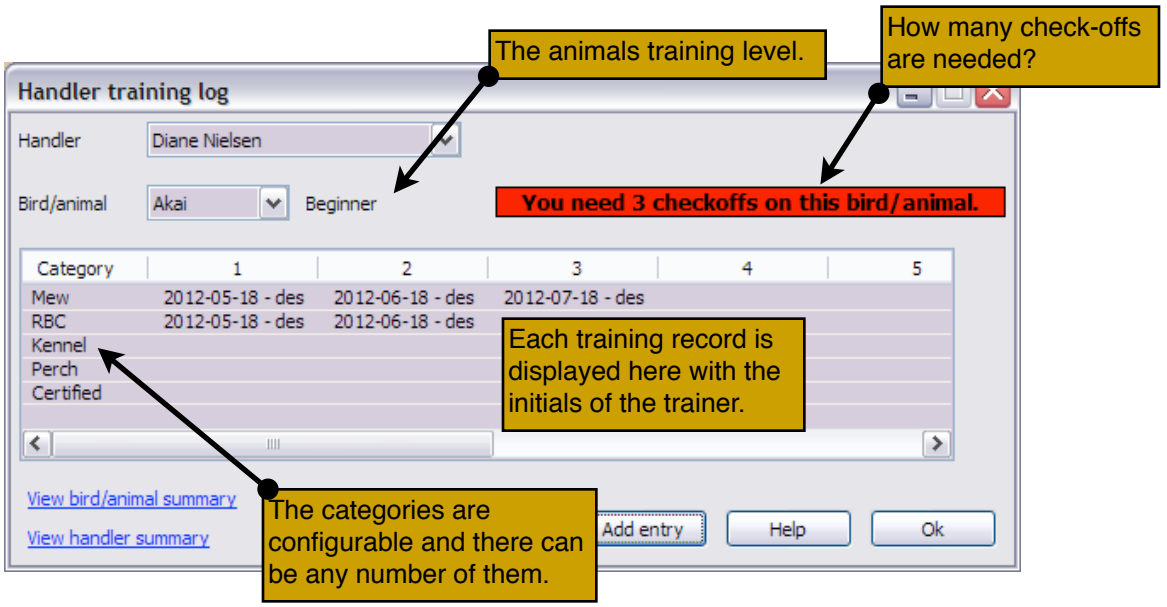
RaptorMed can help you keep track of who is trained to work with various animals in your resident population. To access this function, choose **Edit ▶ Handler training log** from the main menu.

For each resident animal, you can specify a **Training level**. This level indicates how much training a person needs to have in order to be certified or signed off to work independently with the animal. The **Training level** can be one of the following: **Beginner**, **Intermediate**, **Advanced**, or **Master**. Click **here** for more information on setting the **Training level**.

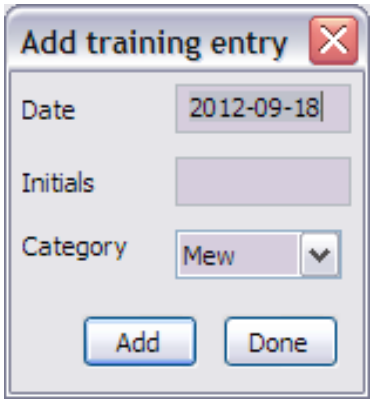
The system can be configured so that a person needs a set number of check-offs in any number of training categories. Once a person has completed the required number of

check-offs in each category, you can mark the person as **certified** on a particular animal.

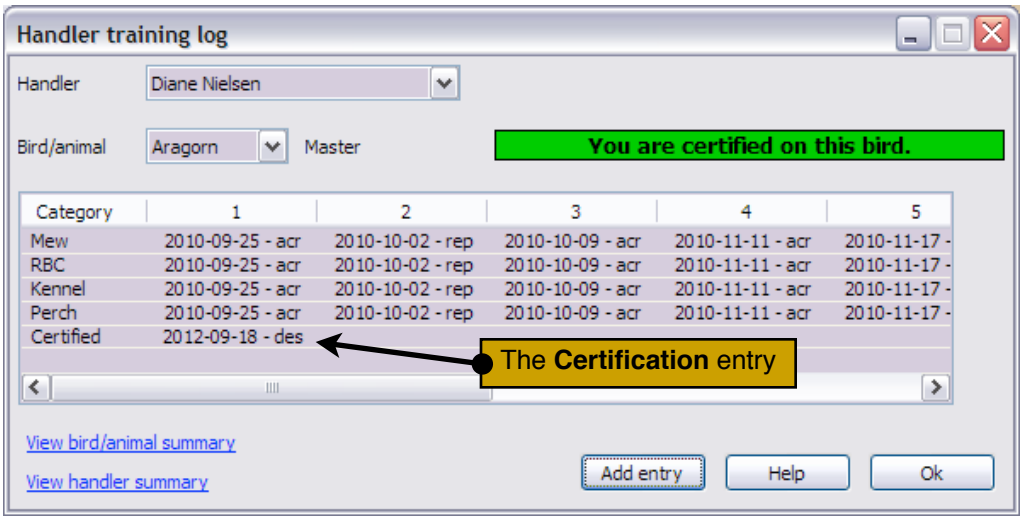
In the Handler training log, you can select the Handler and the animal they are training on. Only people from the **Address Book** with the **Handler** check box checked will be included in the list. Only animals with a **Training level** set will be included the list. Click **here** for more information on the **Training level**.



When an animal is selected, the **Training level** and the number of required check-offs will be displayed. When a person is then selected, each training check-off will be displayed. To add a new training entry for this person/ animal, press the **Add entry** button. A small window will appear that allows you to specify the date, the initials of the trainer and training category. Press **Add** to add a new entry. You can add multiple entries and then press **Done** when you are finished.



When all training is complete, add one more entry by choosing **Certified** for the category. The display will change to show a **green** banner indicating that the person is now certified on this animal.



There are two reports that you can run:

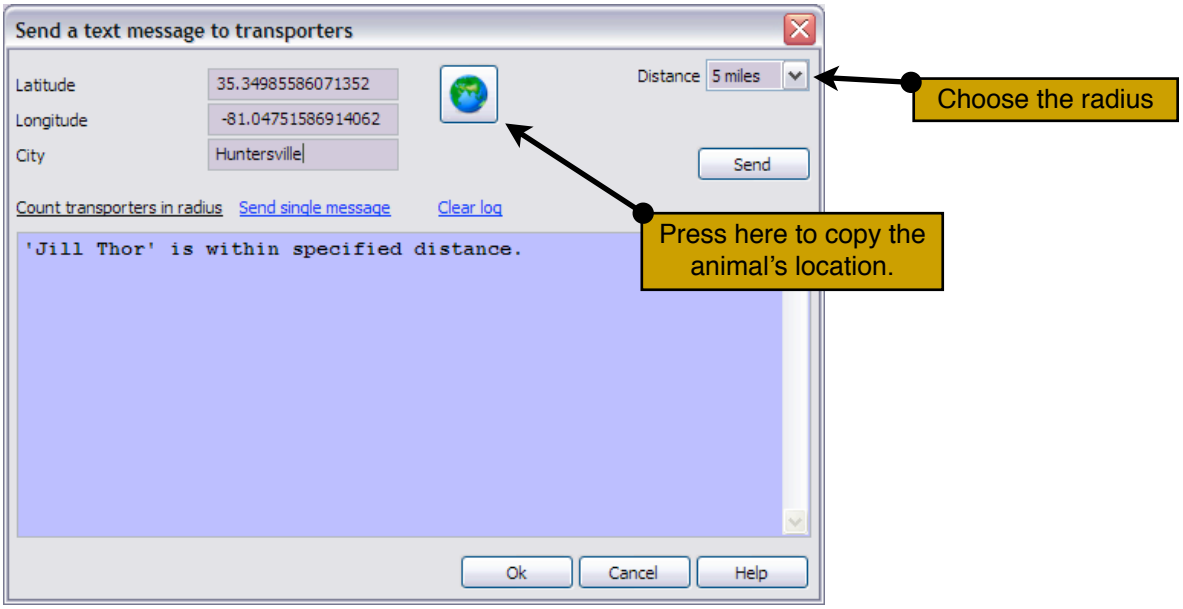
- The **Animal summary report** lists all the **Certified** people for each animal.
- The **Handler summary report** lists the training history of each person for each animal.

Transporter text messages

The function allows you to quickly and automatically send a text message to all **Transporter** people in the **Address Book** which are within a specified radius of an injured animal. To access this function, choose **Tools ▶ Contact transporters** from the main menu.

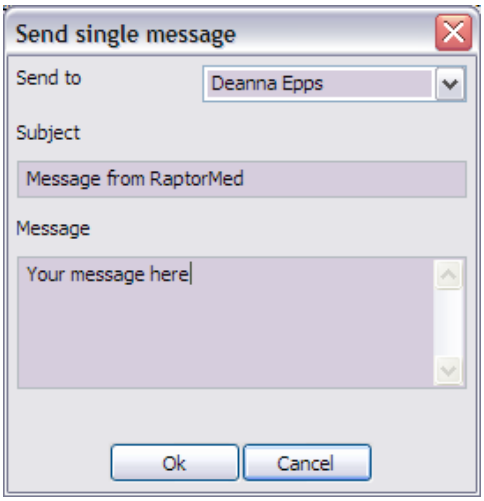
To use this function:

1. Find the location of the injured animal on the **Transporter Google Map**. Click **here** for information on creating the the map. This will store the location of the injured animal in the Windows clipboard.
2. Choose **Tools ▶ Contact transporters** from the main menu. The text message for will appear.
3. Press the globe button to copy the location you just stored from the map.
4. You can enter the city's name. This will be inserted into the text message that will be sent.



5. Choose the desired **Distance**. This is the radius in miles that will be used to search for transporters.
6. Press the **Count transporters in radius** link to see how many people are in the desired radius. You can increase or decrease the **Distance** as needed. The list of available people will be printed out for you to view. Note: contacts from the **Address Book** will only be listed here if:
   - They have the **Transporter** checkbox checked.
   - They are within the desired distance/radius.
   - They have a **Mobile phone** number and **Cell provider** specified.
   - They have the **Accept text message** check box checked.
   - And finally, if the **Availability check boxes** for the time of day and day of week match the current time of day. These check boxes allow you to prevent somebody from receiving a text message at times of day where they cannot accept them or do not want to be bothered.
7. When you have a reasonable list of transporters, press the **Send** button. A text message will be sent to each person. The message is configurable and is formatted when **RaptorMed** id installed but it generally says something like "There is an injured animal in CITY. Can you help? If yes, please call...".

You can also send a random text message to any contact in the **Address Book**. Press the **Send single message** link and the following form will appear. Choose a recipient from the **Send to** list, type in your subject and the message body and press **Ok**. Note that only the contacts with text messaging enabled in the **Address Book** will appear in the **Send to** list.



Chapter 6

[Miscellaneous functions](#)
[Configuring the system](#)
- [Preferences](#)
- [List choices and locations/enclosures](#)
- [Drug dosages](#)
- [Treatments](#)
- [Species](#)

[Users](#)
[System maintenance](#)

Miscellaneous functions

Finalizing a patient
Once a patient's final disposition has been established, it's status must be updated in the system. A patient's **status** is set by clicking **Patient info** in the **Action Bar** on the patient's chart. Click here for more information on setting **Patient info**. The choices for patient status are summarized in this table.

Status	Description
DOA	dead on arrival
EOA	euthanized on arrival
D24	died within 24 hours
E24	euthanized within 24 hours
D	died after 24 hours
E	euthanized after 24 hours
Reh	currently in rehab
R	released
PR	currently a permanent resident
T	transferred
ESC	escaped

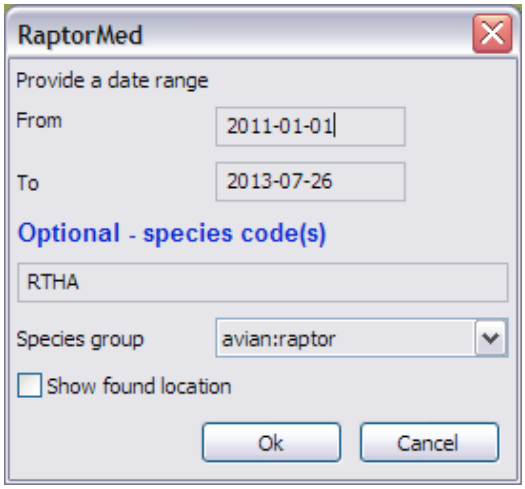
Only **Reh** and **PR** are considered "**active**" patient statuses. All others are inactive and it is important to properly set the patient **Status** and **Final date** in order to remove a patient from active status.

Note that if you set the patient status to **R** or **T**, then you should also create a **Release** or **Transfer** record for the patient.

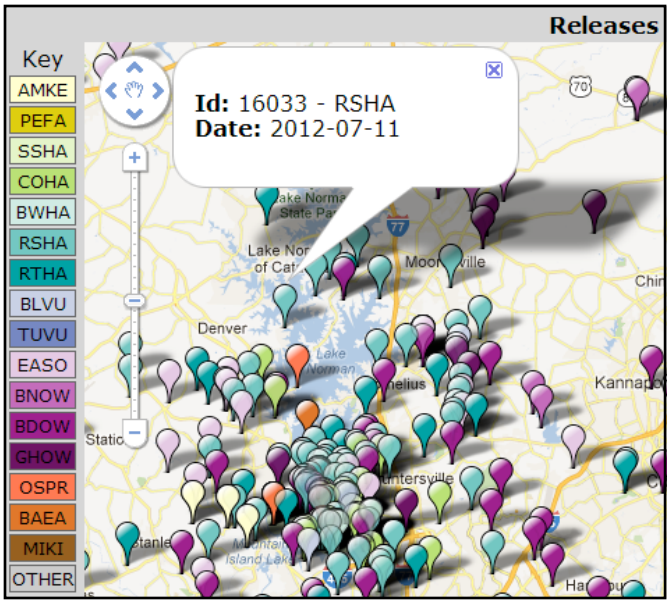
- Click here for **Release** records
- Click here for **Transfer** records

Delete last group entry
This command allows you automatically delete the last record entry for each patient in the specified location. This is primarily used to correct a previous data entry error and is accessed by right-clicking on the enclosure and choosing **Delete last group entry**.

Exporting releases to a Google Map
RaptorMed can export information about past releases to a Google Map. This is very useful when planning future releases as it helps prevent over-crowding of certain species in a certain area. Choose **Report ▶ Export releases to Google Map** from the main menu. A window will appear that allows you to specify:



- A date range
- Individual species - just enter the species codes. Any number can be entered with a space between them. If nothing is entered here, then all species will be exported.
- The species group can also be specified to export only reptiles, for example.
- You can also select whether to display the found location in addition to the release location.



The number of patients will be displayed and then a newly created Google Map will be displayed. Each release is indicated by a balloon that is color-keyed based on species. You can click on each balloon to view information about the animal that was released.

Bandit integration
All federal bands that are placed on avian patients prior to release must be reported to the Bird Banding Lab (BBL). This is typically done through the use of the Bandit software. You can manually enter the data into Bandit but this is cumbersome, time-consuming and error prone. **RaptorMed** simplifies this process. Choose **Report ▶ Bandit** from the main menu. You will be prompted to enter a date range. Once you specify a range and select a folder to save to, **RaptorMed** will create a file that contains

the required information on all the bands used in the specified date range. You can then use the Import command in Bandit to load this data and submit it to the BBL.

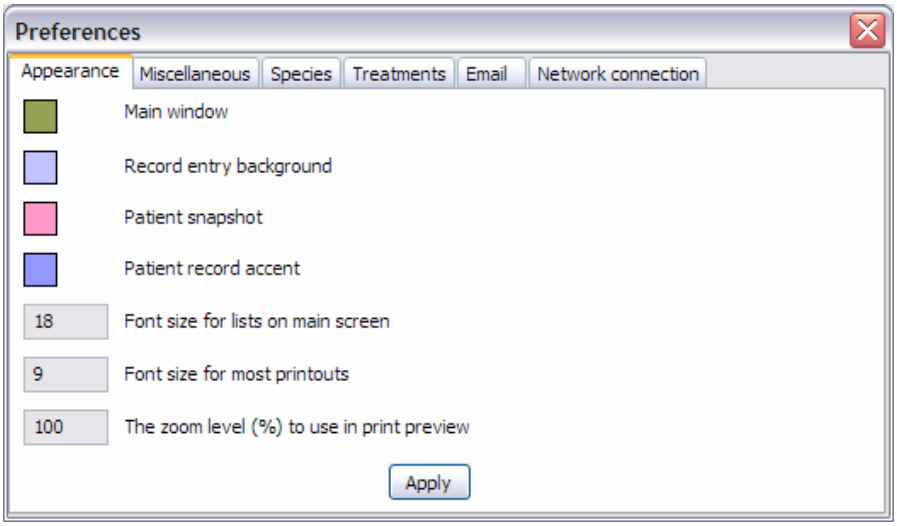
Configuring your system

Preferences

Choose **File ▶ Preferences** from the main menu to set preferences and various other settings. A window with several tabs will be displayed. Note that the actual tabs displayed depend on the specific privileges of the **RaptorMed** user that you are logged in as. Click here for more information on users and user privileges. In most cases, you will need to press the **Apply** button before your changes will be activated. In some cases, you may need to restart the program.

Appearance

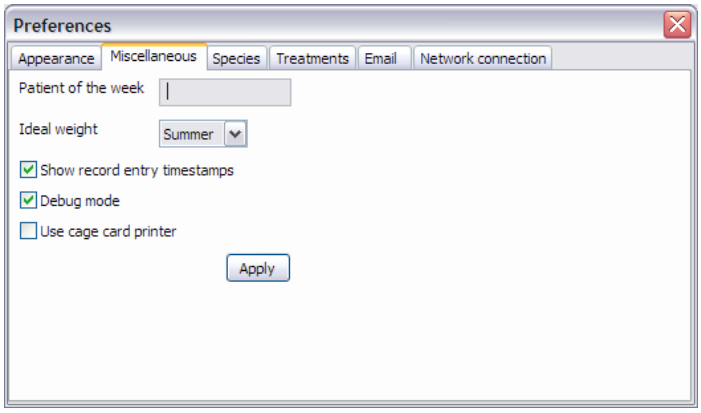
This tab allows the colors of various areas in the program to be set. Double-click on each color to choose from a color-picker.



- **Main window** - This sets the color of the **Patient** list and the **Enclosure** list in the main window.
- **Record entry background** - This sets the color of the main text edit area in the medical record entry form as well in other forms throughout the program.
- **Patient snapshot** - This sets the color of the patient snapshot popup window.
- **Patient record accent** - This sets the color of the accented areas in the main patient record display.
- You can also choose the **font size** that is used in the lists in the Main Window and on most printouts. If you leave thse blank, then the default system font will be used. As a point of reference, a font size of 18 is very large.
- The default **zoom level** that is used when you preview the various printouts before actually printing them.

Miscellaneous

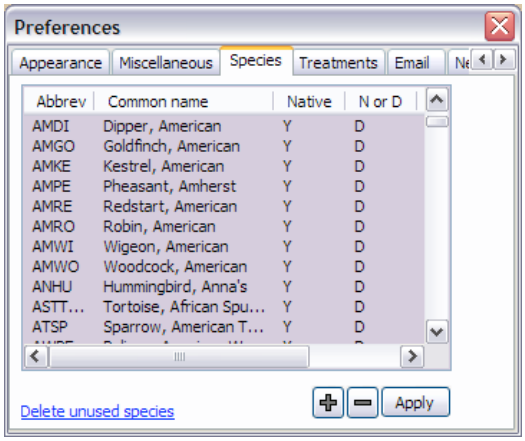
This tab allows the following settings to be configured:



- **Patient of the week** - This determines which patient will be showcased on the **RaptorMed** web page.
- **Ideal weight** - Each patient can have an ideal weight specified for the summer and/or winter. See **Patient info** for details. This weight is displayed as an "ideal weight band" on the patient's weight chart. This setting allows you to choose which weight will be used for the weight band display. This setting should be updated based on the season.
- **Show record entry timestamps** - If this is checked, then the last date and time that a record entry was updated will be displayed in the patient's record.
- **Debug mode** - For internal use only.
- **Use cage card printer** - If this is checked, the dedicated cage card label printer function is enabled.

Species

This list of species programmed into the system can be edited and modified on this tab. To add a new species, press the **+** button. To edit an existing species, double-click on it. To delete the selected species, press the **-** button. Note that you can select more than one species using the shift and control left-click key combinations. You can sort the list by clicking on each column heading. Note that **N or D** stands for **Nocturnal or Diurnal**.



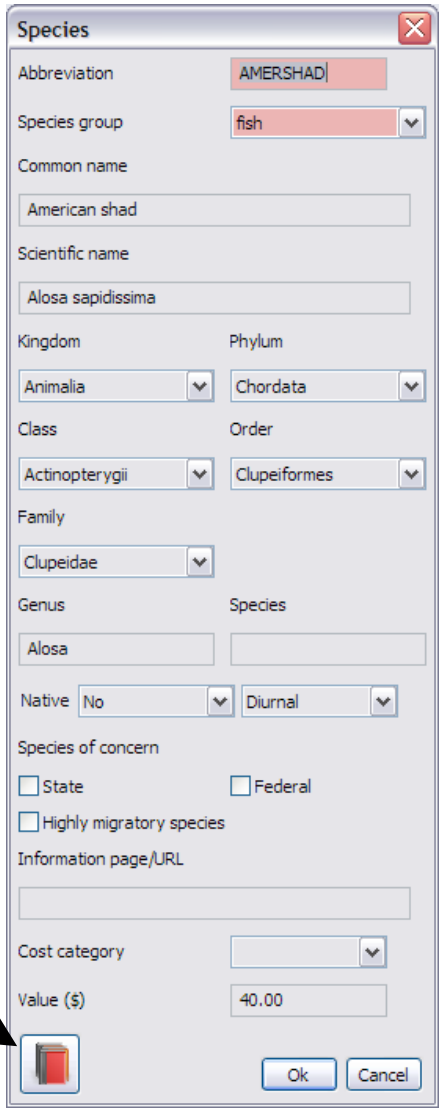
You remove any unused entries from the list by pressing the **Delete unused species** link.

When adding or editing a species, the following form appears. There are fields for the **Abbreviation**, **Common name**, **Scientific name,** and you can specify whether the species is **Native** or not and whether it is **Diurnal or Nocturnal**.

You can also specify whether this species is a **Species of concern** (i.e. threatened or endangered) in your state or nationally. This is important because the system will remind you to report species of concern when admitted. In addition, you can specify if this is a **Highly Migratory Species** (important when creating HMS reports).

If enabled on your system, you can also specify the entire taxonomy from Kingdom to Species.

For birds, the four-letter abbreviations specified by the **USGS Bird Banding Lab** (BBL) are typically used, although, this is not absolutely required. For non-avian patients, you can used any scheme that works for you. Many facilities use the genus/species as the basis of the abbreviation. For example, the opossum is *Didelphis virginiana* and its abbreviation could be **DIVI**. Another option is to create easily recognized abbreviations for a species so the opossum could be **OPOS**. Any abbreviation can be used as long as two species do not have the same abbreviation.



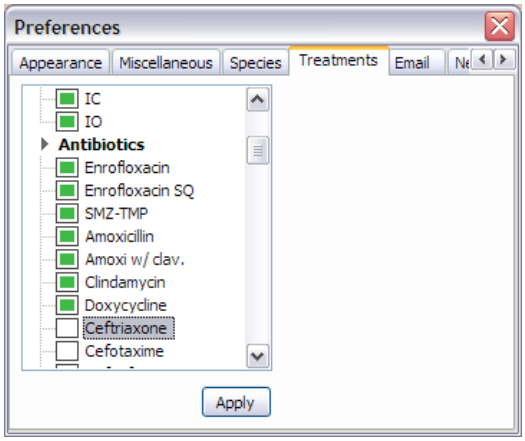
Click here to automatically go to the USGS BBL page of abbreviations.

You can specify an **Information page/URL** as well. This page will be displayed when the user right-clicks on a patient and chooses **Show species info page**. Note that Wikipedia has a very good set of pages for a wide range of species.

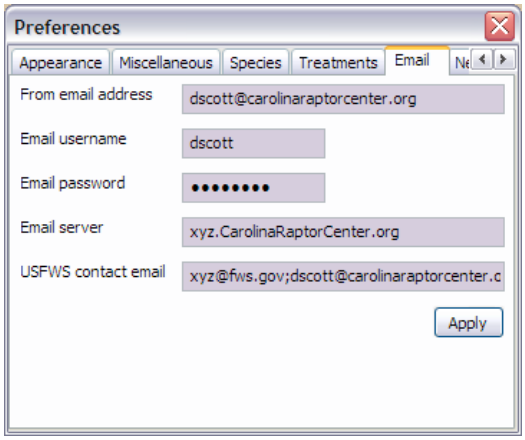
The **Cost category** is used by the **Cost Estimator** function and this setting helps determine the per day cost for a patient of a particular species.

The **Value** field can be used to assign a monetary value to a specimen of this species.

Treatments
The non-medication treatments that will appear as options on the treatment sheets are chosen on this tab. There are the following general categories: **Food**, **Fluids**, **Eyes**, **Ears** and **Miscellaneous**. You must restart the program before any changes made here will take effect.

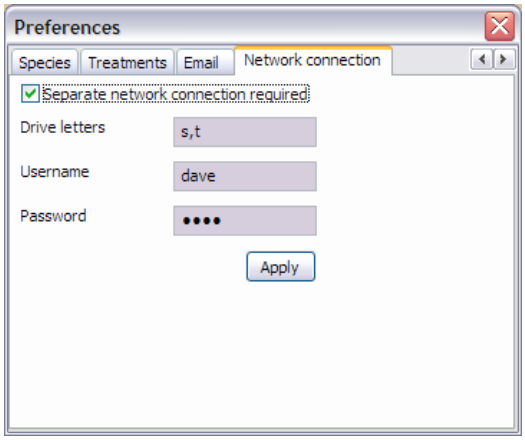


Email
These settings are used to configure the function that allows **RaptorMed** to automatically sends emails for various situations. Click here for details. These settings are typically configured when the system is installed and should not need to be changed.



Network connection

Each **RaptorMed** workstation needs to have access to a few shared folders on the **RaptorMed** server machine. In most instances, this access will be established automatically by Windows when you log onto your machine. In some cases, this does not occur and this tab allows you to manually configure access to these folders.



Check the **Separate network connection required** checkbox if this is necessary.

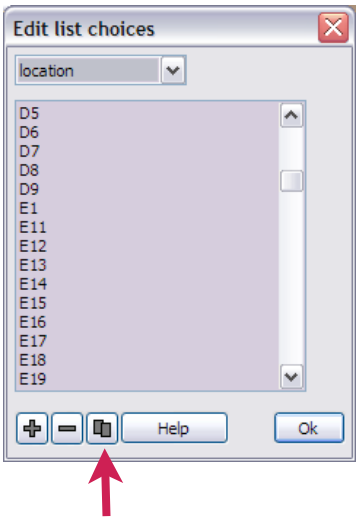
A drive letter must be specified for each of the two shared folders to be accessed. The drive letters are separated by a comma. For example: **s,t** would be an appropriate entry here.

Enter the Windows login **username** and **password** required to access these folders. Your network administrator may need to provide this.

You will need to restart **RaptorMed** for the changes to take place. When **RaptorMed** starts a command-prompt window will popup momentarily as the connection to these folders is established. As a test, try to view any image for an existing patient. If you can view an image, then you have configured this properly. If the images for any patient do not appear, then you may have entered the wrong username or password.

List choices

There are lists to choose from throughout the program. In general, the choices in these lists are configurable. To edit these choices, select **Edit ▶ List choices** from the main menu. A window will appear that allows you to select the category/list you want to edit. You can add a new entry by pressing the **+** button. You can delete the selected choice by pressing the **-** button and you can edit the selected choice by double-clicking it. In addition, you can copy the selected **Location** by pressing the **Copy** button (indicated by the arrow in the screenshot). The following category/lists can be edited:



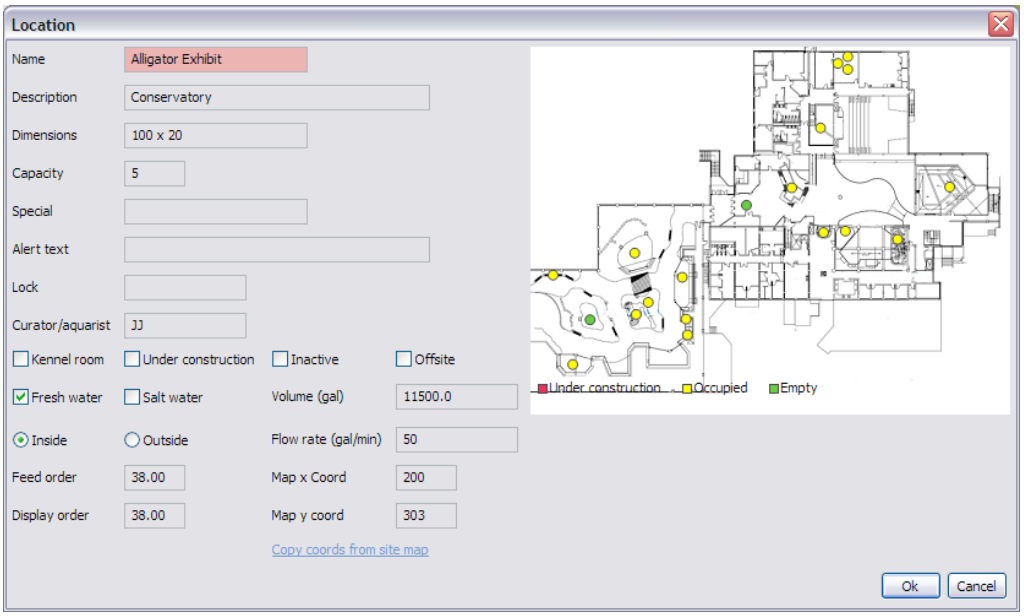
- **Age** - Used to specify the patient age on admission and the current age.
- **Chemistry source** - Used to specify the source of the results for blood chemstries.
- **City** - Used to specify where a patient was found and for making entries in the Address Book.
- **Clinicians for consult** - Used to schedule a consult with a specific clinician on the treatment sheet.
- **Collection method** - The methods used to capture fish from the wild.
- **Collectiion vessel** - The vessels/boats used to capture fish from the wild.
- **County** - Used to specify where a patient was found and for making entries in the Address Book.
- **Dosage units** - The units used to specify a dose per kg. Used by the Medication Editor when setting up a dosage for a liquid drug. The typical value is **ml**.
- **Ear medication type** - These are the choices available when ordering ear medications on the treatment sheet.
- **Eye antibiotic** - These are the choices available when ordering ophthalmic antibiotics on the treatment sheet.
- **Eye NSAIDs** - These are the choices available when ordering ophthalmic NSAID medications on the treatment sheet.
- **Fecal parasites** - Used when recording results of fecal examinations.
- **Formula** - These are the choices available when ordering formula on the treatment sheet.
- **Image type** - Used to specify the type of image when a new image is dragged and dropped onto a patient's chart.
- **Injury cause** - Used to specify the cause of injury.
- **Keyword** - Used to save special keywords in the patient's chart. These can be used to search for patient's with special problems or that were treated with special treatments.
- **Lab results source** - Used to record the source (i.e. lab or instrument) that generated the results of a specific sample test.

- **Lab test** - Used to specify a lab test that was run on a sample.
- **Location** - Used to configure each separate enclosure or cage for housing patients.
- **Patient skill level** - Used to specify the skill level required to do a treatment on a particular patient. This option may not be available in all installations.
- **Problem** - Used to record the various problems and diagnoses.
- **Release id type** - Used to specify the type of release identification device that was used when a patient is released. Typical choices include **Leg band** and **ear tag**. This choice is made on the **Release** form.
- **Reason for euthanasia** - Used to specify the reason that a euthanasia was performed.
- **Release id type** - Used when creating a release record to specify which type of permanent id was placed on an animal. Typical choices include Leg band, ear tag, etc.
- **Reminder category** - Used to categorize reminders. They can be any descriptive text such as a department or person's name and can be used to sort the reminders in the Reminder Viewer.
- **Sample type** - Used to specify the type of sample (i.e. blood, biopsy, etc.).
- **Species group** - Used to specify a group of species such as avian, avian:raptor, avian:songbird, or mammal. Note that the species groups are hierarchical and each sub-category is separated by a colon.
- **Stain** - Used to specify the stain that was used in preparing a cytology slide.
- **Surgical procedure** - Used the specify the procedure that is described in a surgical report.
- **Tag type** - Used the type of tag used to identify aquatic animals. PIT tag is the most common choice for this.
- **Tracker type** - Used the specify the type of tracking device that may have been used when a patient is release. This choice is made on the **Release** form.
- **Vitamin type** - Used the specify the type vitamins that are to be used in an individual treatment plan. Not currently used.

All category list values except for the **Location** are simple text. For each **Location**, the following properties that can be set:

- **Name** - The name of the enclosure. This can be simply a number or a more descriptive name. Note that apostrophes are not allowed in the name.
- **Description** - A description of this enclosure. For information purposes only.
- **Dimensions** - The enclosure dimensions. This is displayed in the **Enclosure list** on the main screen and is for informational purposes only.
- **Capacity** - The enclosure capacity (i.e. the number of animals that can comfortably be houses in this location). This is displayed in the **Enclosure list** on the main screen and is for informational purposes only.

- **Special** - Any special notes about this enclosure. This is for informational purposes only.
- **Alert text** - This text will be printed on the daily treatment sheets and can be used as an alert or reminder about something specific about this cage. For example, you could say something like “Be careful with door latch” or “Check for ants”.
- **Lock** - Indicates whether this enclosure has a lock. If you enter the lock information (such as the combination lock code), it will print out on the daily treatment sheets.



- There are also several check boxes that determine how this location is used and interpreted by **RaptorMed**.
  - **Kennel room** - This indicates this location is a room full of separate kennels. If this box is checked, then each patient in this location will be treated as an individual. If this box is not checked, then all patients in this location will be treated as a group.
  - **Under construction** - If checked, this location will be highlighted in the **Enclosure** list and on the **Site Map**. This is for informational purposes only and the program does not prevent you from putting a patient in a location that is under construction.
  - **Inactive** - If this box is checked, this location will be removed from all lists and it cannot be selected or used for patients until unchecked.
  - **Offsite** - These locations are for enclosures that are not on the premises and can be used for patients that are currently “on loan” to another organization or are otherwise offsite. Offsite locations are **not** included in the main **Enclosure list**.
  - **Fresh water and Salt water** - Used to indicate that this enclosure is aquatic. Water quality data can be recorded for these enclosures.

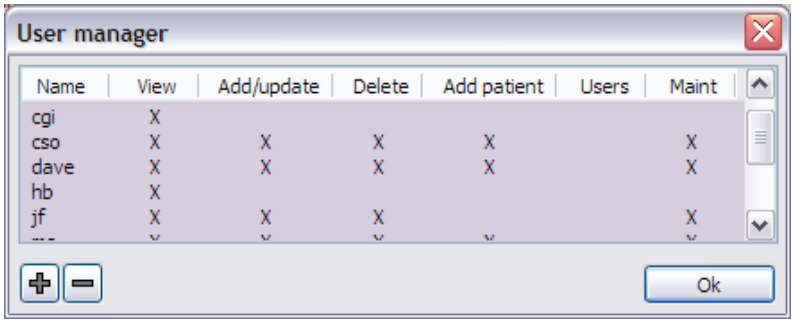
  - **Inside and Outside** - These allow you to specify whether the enclosure is inside or outside. Depending on your configuration, this may determine where patients in these locations will appear on the daily treatment sheets.
- **Volume** - The volume of the tank. This is important for aquatic enclosures and is used to auto-calculate enclosure medication dosages.
- **Flow rate** - For aquatic enclosures. For informational purposes only.
- **Feed order** - This number indicates the order that this location will appear on the daily treatments sheets. Typically, it makes sense to set the feed order so that the order mimics the route that somebody would walk to visit each location. It is a decimal number so that you can add a new location between two existing ones easily. For example, if Cage 1 and Cage 2 have feed order 2.4 and 2.5 respectively, you can add a new location called Cage 1a with a feed order of 2.41.
- **Display order** - This number indicates the order that this location will appear in the **Enclosure list** on the main screen. Typically, it makes sense to set the display order so that each location is in alphabetic order. As with the **Feed order,** this number is a decimal number so that you can easily insert a new location between two existing ones.
- **X Coord** - This is the horizontal coordinate of the location on the **Site Map**. 0,0 is in the upper left corner.
- **Y Coord** - This is the vertical coordinate of the location on the **Site Map**. 0,0 is in the upper left corner.

To easily set the coordinates for a location, **Shift-left click** on a spot on the **Site Map**. Then press the "**Copy coords from site map**" link.

Users and user privileges

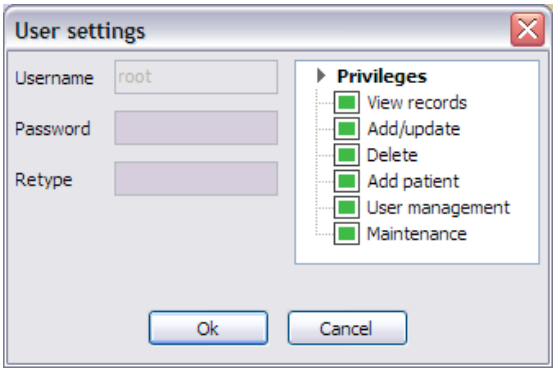
Users can be managed by choosing **File ▶ User manager** from the main menu. Currently you must be logged into **RaptorMed** as a special user whose login name is **root**. This user is setup when the system was installed. It should only be used when you need to manage or add a user; not for day-to-day use.

You can add a user by pressing the **+** button and you can remove the selected user by pressing the **-** button. To edit a user, just double-click on it.



You can select any number of privileges for a user. It is always best to select only the

privileges that are absolutely needed for that user.



A typical user should have **View**, **Add/update,** and **Delete** privileges. You may also want to grant **Add patient** privileges. Only administrator or management-type users should have **User management** or **Maintenance** privileges.

Note that **Delete** privileges does **NOT** allow a user to delete a patient or an entire record entry. This requires a user with **Maintenance** privileges.

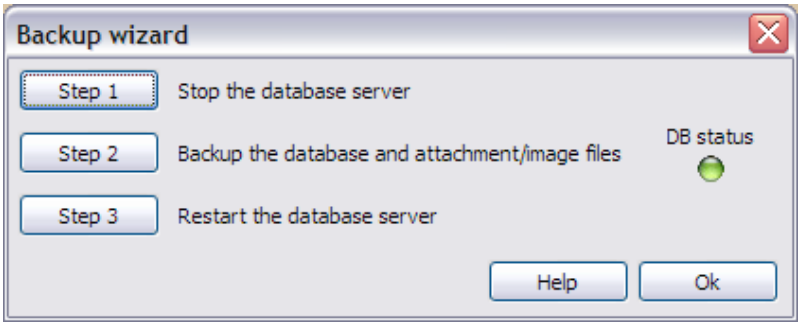
Maintenance

Increment ages
This command can be used to update the age of each active patient. It currently only works for patients whose ages are specified using the age scheme utilized by the USGS Bird Banding Lab (BBL). Specifically, ages such as L, HY, AHY, SY, TY, 4Y, 5Y will be properly incremented but other age values will be ignored. As birds are deemed to have aged one year on Jan 1, this command should be run in early January. Note that this command cannot be undone so you will be prompted twice to proceed before the operation will take place. Note that you must have **Maintenance** privileges to access this function. Click **here** for more information on User privileges.

Backing up the database
The database should be backed up frequently. In order to do this, you can access the **Backup Wizard** by choosing **Tools ▶ Maintenance ▶ Backup database** from the main menu. Note that you must have **Maintenance** privileges to access this function. Click **here** for more information on User privileges.

Notes:
- In order to run this command, the Windows user that you are logged in as must have Administrator rights on the computer. This is sometimes complicated, especially on Windows 7, so you may need assistance from your network administrator.
- Also realize that the database will be offline for the short period of time that is required to perform the backup, so you should plan to do the backup during a slow period or after hours.

When you press **Step 1**, a window will pop up momentarily. This stops the database and the **green** light should change to **red**. If the color does not change, then your Window's user account probably does not have the correct access rights.



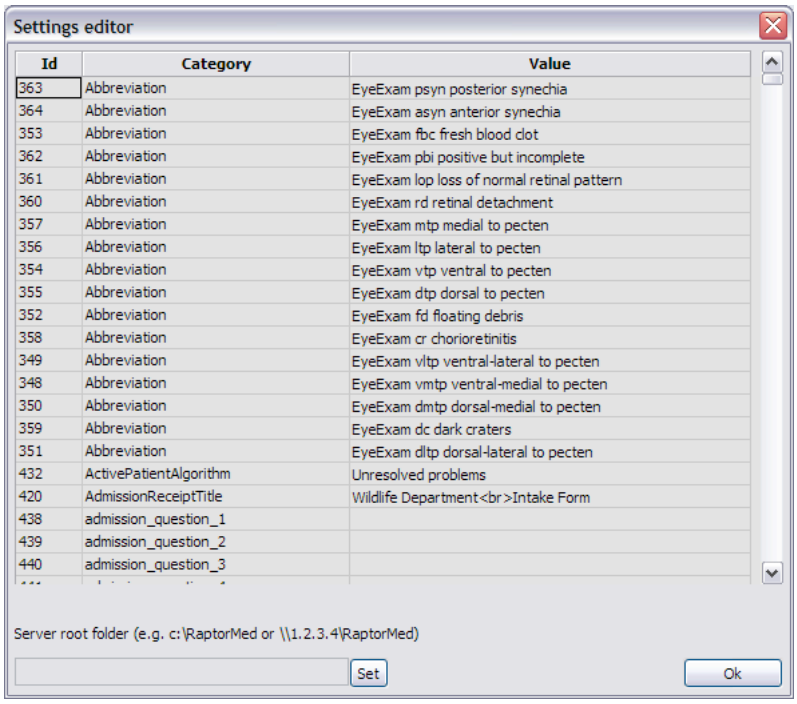
Once the light has turned **red**, press **Step 2**. This automatically opens each folder that has data that needs to be backed up. This is done as a convenience for you but the actual backup procedure that you must perform depends on if you are burning the data to a CD/DVD or copying it to a secure network drive.

Once the backup procedure is complete you can close all the folders that were opened in **Step 2** and press **Step 3**. A window will popup again to restart the database and the light should turn back to **green**. At this point, the backup procedure is complete.

You can view the history of all backups by choosing **Help ▶ About** from the main menu. A list of all database maintenance, including backups and updates, will be displayed.

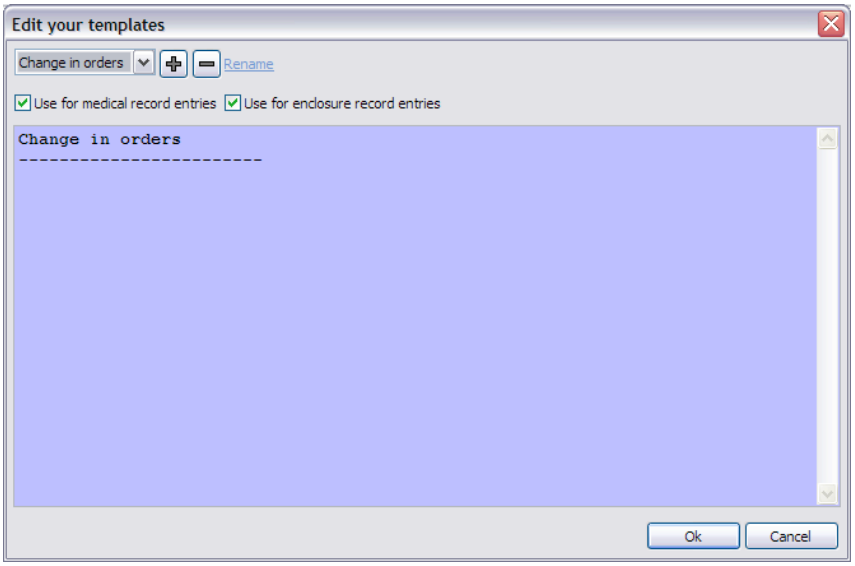
Settings editor

The Settings editor is used to do maintenance or make configuration changes to the database. It is accessed by choosing **Tools ▶ Maintenance ▶ Settings editor** from the main menu. This function is generally for internal use only or should only be used under direction from **RaptorMed** technical support. Note that you must have **Maintenance** privileges to access this function. Click **here** for more information on User privileges.


Settings editor
Id
Category
Value
363 Abbreviation EyeExam psyn posterior synechia
364 Abbreviation EyeExam asyn anterior synechia
353 Abbreviation EyeExam fbc fresh blood clot
362 Abbreviation EyeExam pbi positive but incomplete
361 Abbreviation EyeExam lop loss of normal retinal pattern
360 Abbreviation EyeExam rd retinal detachment
357 Abbreviation EyeExam mtp medial to pecten
356 Abbreviation EyeExam ltp lateral to pecten
354 Abbreviation EyeExam vtp ventral to pecten
355 Abbreviation EyeExam dtp dorsal to pecten
352 Abbreviation EyeExam fd floating debris
358 Abbreviation EyeExam cr chorioretinitis
349 Abbreviation EyeExam vltp ventral-lateral to pecten
348 Abbreviation EyeExam vmtp ventral-medial to pecten
350 Abbreviation EyeExam dmtp dorsal-medial to pecten
359 Abbreviation EyeExam dc dark craters
351 Abbreviation EyeExam dltp dorsal-lateral to pecten
432 ActivePatientAlgorithm Unresolved problems
420 AdmissionReceiptTitle Wildlife Department
Intake Form
438 admission_question_1
439 admission_question_2
440 admission_question_3
Server root folder (e.g. c:\RaptorMed or \\1.2.3.4\RaptorMed)
Set
Ok

Medical record text template editor

The text stings that can be automatically inserted into a medical record are list at the top of the list on the right-hand side of the medical record entry form. These can be edited using this tool that is accessed by choosing **Tools ▶ Maintenance ▶ Template editor.**



A window is displayed that displays each template.

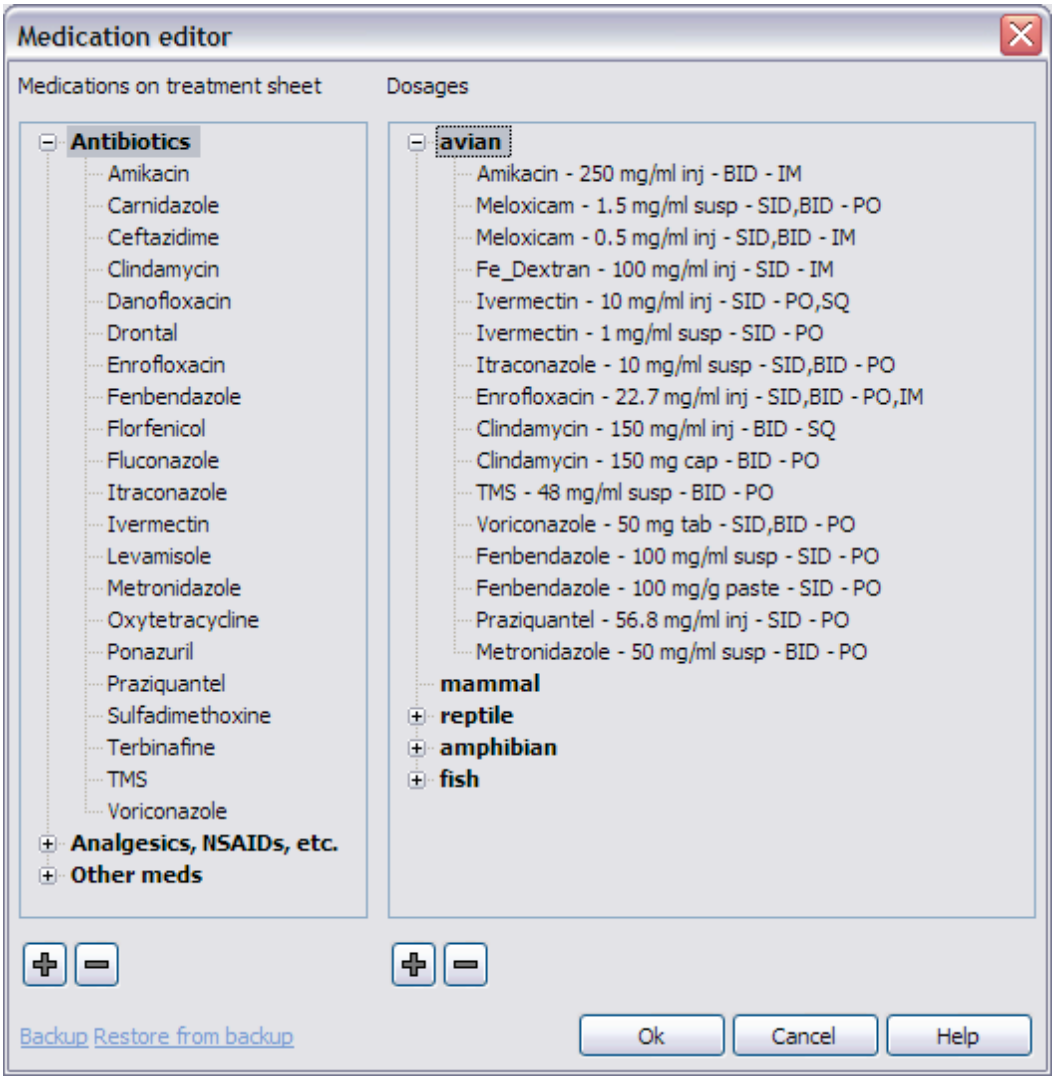
- Select a template by choosing one from the list. You can edit the template's text that is displayed in the large edit fields.
- Add a new template by pressing the **+** button.
- Remove a template by pressing the **-** button.
- Rename a template by pressing the **Rename** link.
- In addition, you can specify whether this template should be available for individual patient record entries and/or enclosure record entries by checking the appropriate boxes.

Medication editor

The medications listed on the individual treatment sheets can be configured using this tool that is accessed by choosing **Tools ▶ Maintenance ▶ Medication editor.** The following window will appear. It is divided into two main sections. The left side lists each medication and they are divided int 3 main categories:

- Antibiotics
- Analgesics, NSAIDs, etc.
- Other meds

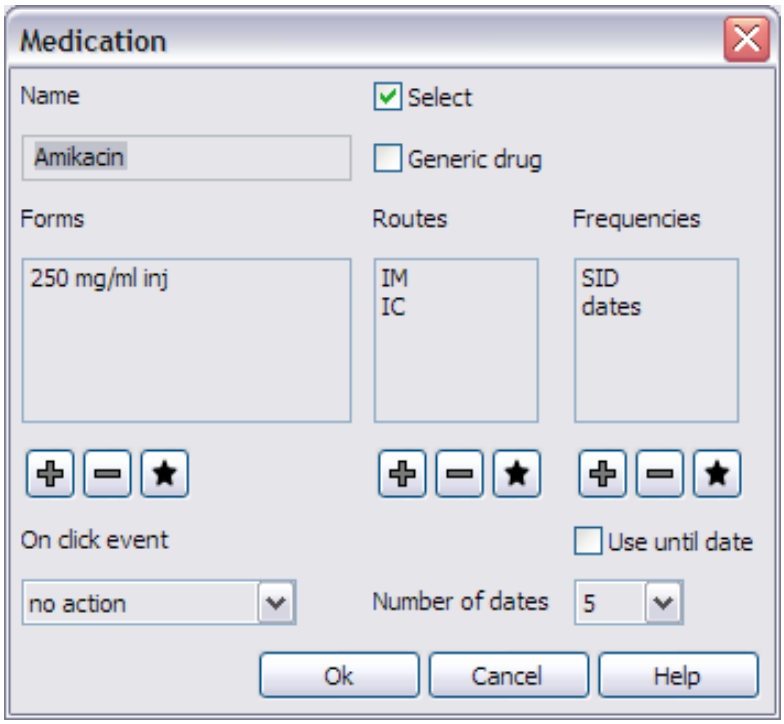
The right side lists the formulary for each drug and it is organized in a nested arrangement based on the species group. So for example, avian:raptor is listed below avian.



You can edit and existing medication by double-clicking any entry in the list on the left side. You can add or remove the selected medication by pressing the **+** and **-** buttons. When adding a new medication it will be added to the category that is currently selected or to the category that contains the medication that is currently selected.

The medication editor form is displayed when editing or adding a medication. The following fields are on this form:

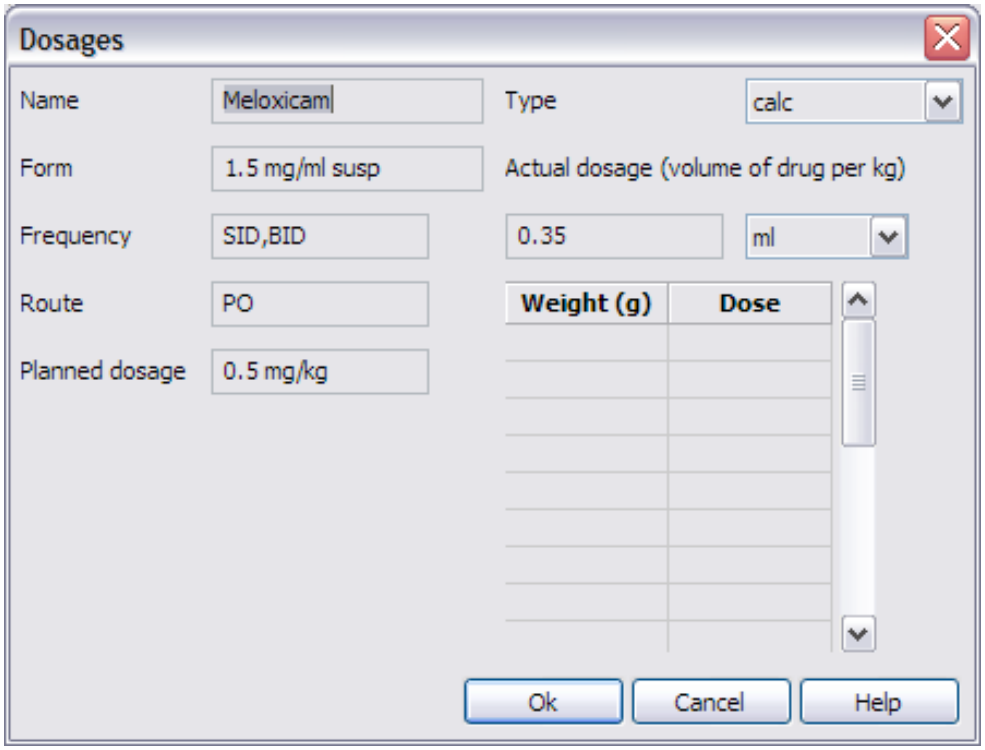
- **Name** - the name that will appear on the treatment sheet. Note that spaces are not allowed. If you enter a space it will be replaced with an underscore.
- **Select** checkbox - check this box if you want this medication to be available on the treatment plan form.
- **Generic** checkbox - check this box if this is a generic drug.
- The **Forms** list - specify any number of different drug forms/concentrations. Double-click on an entry to edit it. Press the **+** and **-** buttons to add and remove choices. Press the * button the mark the selected choice as the default.
- The **Routes** list - specify any number of different delivery routes. Press the **+** and **-** buttons to add and remove choices. Press the * button the mark the selected choice as the default.
- The **Frequencies** list - specify any number of different delivery frequencies. Press the **+** and **-** buttons to add and remove choices. Press the * button the mark the selected choice as the default. Valid choices are **SID**, **BID**, **TID** and **dates** where **dates** indicates that individual dates can be specified.
- **Use until date** checkbox - check this box if you want this medication to allow an Until date to be specified.
- **Number of dates** - specify the number of individual dates that can be entered. This is only relevant if you have selected "**dates**" as an option in the **Frequencies** list.



- **On click event** - allows you to specify an action that will occur when this medication is selected. The choices are:
  - **approvalRequired** - this will force the user to enter the initials of the person that has approved the use of this drug.
  - **fluids** - this will prompt the user to setup a fluid protocol and is typically used for nephrotoxic drugs.

You can edit and existing dosage by double-clicking any entry in the list on the right side. You can add or remove the selected dosage by pressing the **+** and **-** buttons. When adding a new dosage it will be added to the species group that is currently selected or to the species group that contains the dosage that is currently selected.

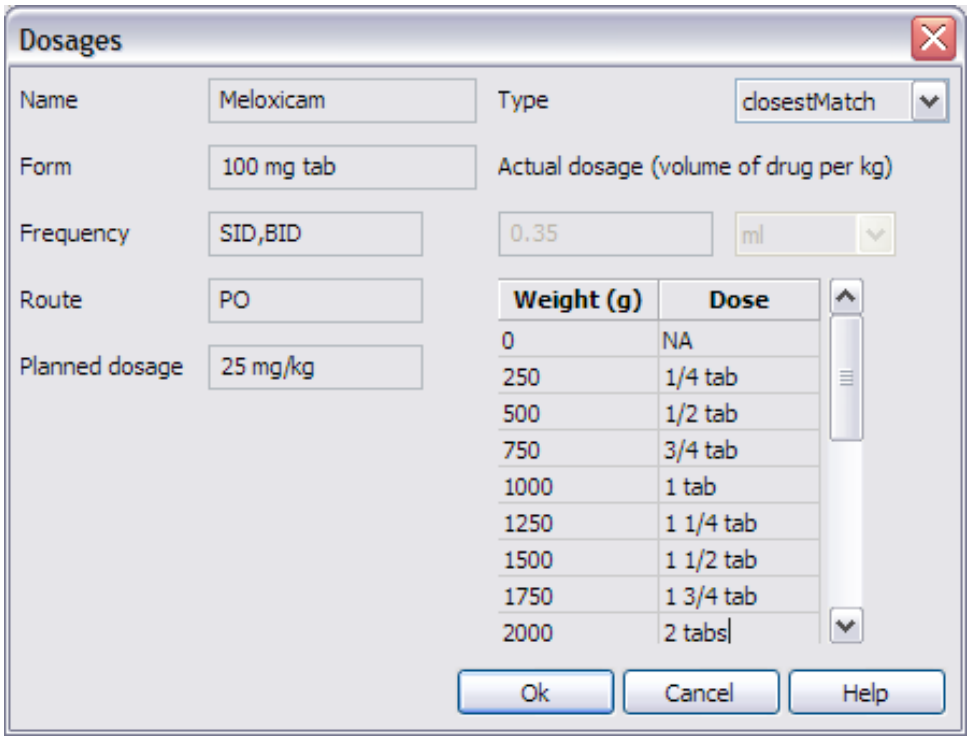
The dosage editor form is displayed when editing or adding a dosage. The following fields are on this form:



- **Name** - The name of the medication. This must exactly match a corresponding entry in the medication list.
- **Form** - The form of the medication. This must exactly match a corresponding entry in the medication list.
- **Frequency** - the dosage frequencies that this dosage applies to. You can list more than one separated by a comma. For example: SID, BID, TID

- **Route** - the dosage route that this dosage applies to. You can list more than one separated by a comma. For example: SQ, IM, IV
- Planned dosage - the intended dosage in mg/kg. This is for informational purposes only and is not used in any dosage calculations.
- **Type**
  - **calc** - This is used for liquid medications that can be dosed exactly by calculating the dose based on the animal's weight and the concentration of the liquid. The dose is calculated by multiplying the animals weight in kg by the Actual dosage specified in the Actual dosage fields. For example: if the weight is 2 kg and the Actual dosage is specified as 0.35 ml, then the dose would be 0.7 ml

  - **closestMatch** - This is used for tablets and capsules that cannot be divided easily. If this choice is selected, the Actual dosage fields are ignored. Instead a spreadsheet is used that allows you to specify a dose that most closely matches the animal's weight. So for example, you could specify that 100 g animal gets 1/4 tab, a 250 g animal gets 1/2 tab, etc. The following is a typical example:



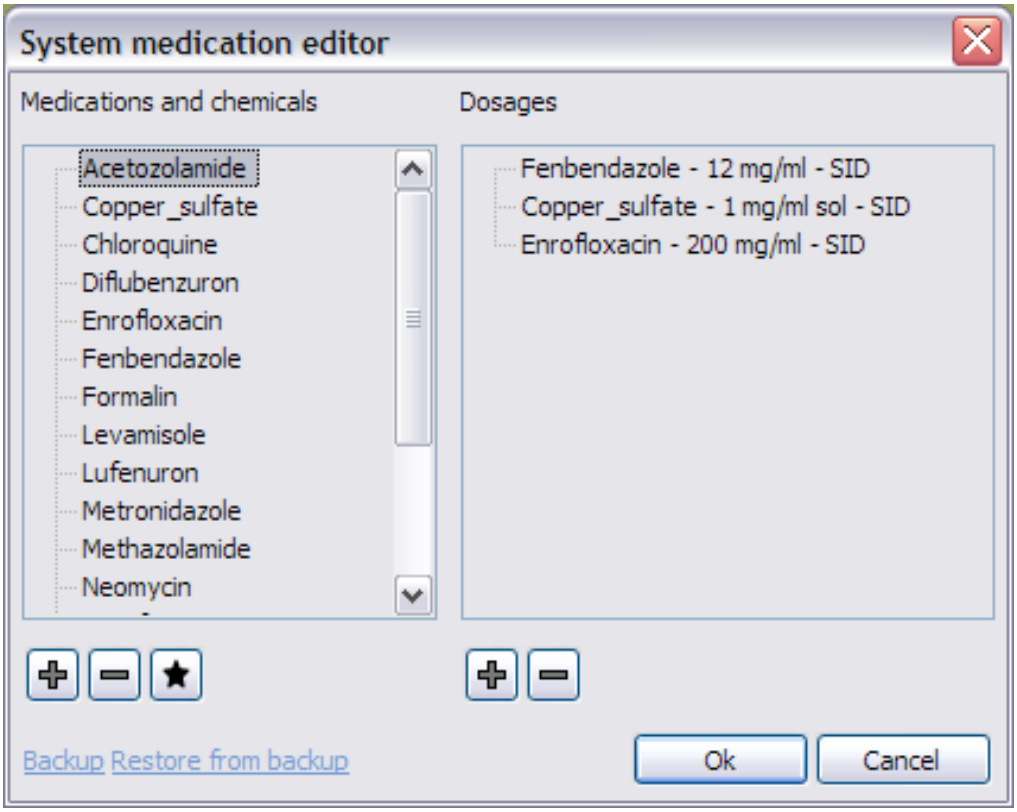
Note that it is good practice, as is shown in this example, to include a dose of **NA** (not applicable) for a weight that is too small or too large to be effectively dosed by this medication form. If this is done, then the auto-calculator will display **NA** when this drug is selected and this will indicate to the user that another drug form must be used.

You can right click on the dosage spreadsheet to **Clear all** previously entered dosages and to **automatically insert a range of weights**. When auto-inserting a weight range, you will be prompted for the min weight, the max weight and the increment in weight between entries. All weights are in grams.

At any time, you can backup the medication formulary by pressing the **Backup** link. As the process of editing the formulary is somewhat detail-oriented, it is not a bad idea to perform a backup before making any edits. When you make a backup, the formulary is stored in a file that contains the date and time. If an error is made, you can easily restore a saved backup by pressing the **Restore** link. When restoring a formulary from a backup, you will be prompted to choose from a list of previously saved backups.

Enclosure medication editor

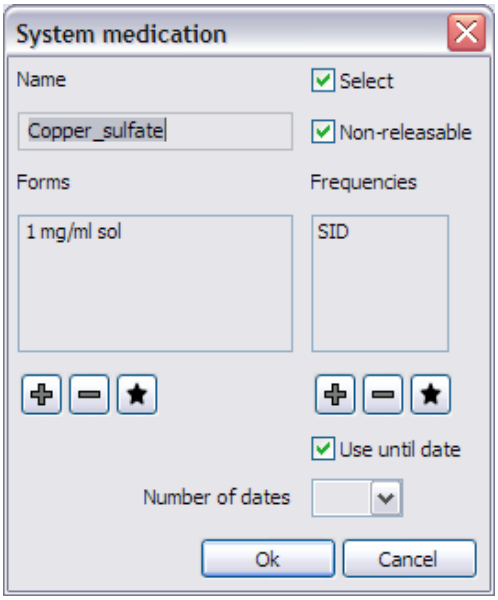
The medications listed on the enclosure treatment sheets can be configured using this tool that is accessed by choosing **Tools ▶ Maintenance ▶ Enclosure/system medication editor.** The following window will appear. It is divided into two main sections. The left side lists each medication and the right side lists the dosages.



You can edit and existing medication by double-clicking any entry in the list on the left side. You can add or remove the selected medication by pressing the **+** and **-** buttons.

The medication editor form is displayed when editing or adding a medication. The following fields are on this form:

- **Name** - the name that will appear on the treatment sheet. Note that spaces are not allowed. If you enter a space it will be replaced with an underscore.
- **Select** checkbox - check this box if you want this medication to be available on the treatment plan form.
- **Non-releasable** checkbox - check this box if this is a drug that should result in any animals being marked as non-releasable after being treated with this drug.
- The **Forms** list - specify any number of different drug forms/concentrations. Double-click on an entry to edit it. Press the **+** and **-** buttons to add and remove choices. Press the ***** button the mark the selected choice as the default.
- The **Frequencies** list - specify any number of different delivery frequencies. Press the **+** and **-** buttons to add and remove choices. Press the ***** button the mark the selected choice as the default. Valid choices are **SID**, **BID**, **TID** and **dates** where **dates** indicates that individual dates can be specified.
- **Use until date** checkbox - check this box if you want this medication to allow an Until date to be specified.
- **Number of dates** - specify the number of individual dates that can be entered. This is only relevant if you have selected "**dates**" as an option in the **Frequencies** list.

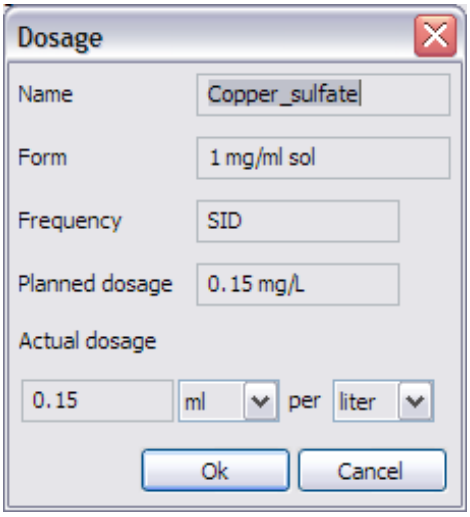


You can create a new **dosage** entry from the selected **medication** entry by pressing the ***** button.

You can edit and existing dosage by double-clicking any entry in the list on the right side. You can add or remove the selected dosage by pressing the **+** and **-** buttons.

The dosage editor form is displayed when editing or adding a dosage. The following fields are on this form:

- **Name** - The name of the medication. This must exactly match a corresponding entry in the medication list.
- **Form** - The form of the medication. This must exactly match a corresponding entry in the medication list.
- **Frequency** - the dosage frequencies that this dosage applies to. You can list more than one separated by a comma. For example: SID, BID, TID.
- **Planned dosage** - the intended dosage in mg/kg. This is for informational purposes only and is not used in any dosage calculations.
- **Actual dosage** - Specify the amount here. The volume units for the dose and the units for the destination aquarium must be specified.



At any time, you can backup the medication formulary by pressing the **Backup** link. As the process of editing the formulary is somewhat detail-oriented, it is not a bad idea to perform a backup before making any edits. When you make a backup, the formulary is stored in a file that contains the date and time. If an error is made, you can easily restore a saved backup by pressing the **Restore** link. When restoring a formulary from a backup, you will be prompted to choose from a list of previously saved backups.

Licensing and system information

RaptorMed requires an active license in order to run. The license is renewed on a periodic basis as determined by the purchase agreement. The current license expiration date is shown in the **About** box that is displayed when you select **Help ▶ About** from the main menu.

In addition, this window displays the network IP address of the **RaptorMed** server and the status of the **RaptorMed** shared folder resources. These can be helpful when debugging problems that you may encounter.